

chain nodes :

7 8 9 11 12 13 14 15

ring nodes :

1 2 3 4 5 6 10

chain bonds :

2-7 5-15 7-8 7-9 7-10 10-11 11-12 11-13 13-14

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

1-2 1-6 2-3 2-7 3-4 4-5 5-6 7-8 7-9 7-10 11-12 11-13 13-14

exact bonds :

5-15 10-11

isolated ring systems :

containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:Atom
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS

10/700202

=> s l1

SAMPLE SEARCH INITIATED 11:57:57 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 68 TO ITERATE

100.0% PROCESSED 68 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 866 TO 1854

PROJECTED ANSWERS: 2 TO 124

L2 2 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 11:58:21 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1413 TO ITERATE

100.0% PROCESSED 1413 ITERATIONS

103 ANSWERS

SEARCH TIME: 00.00.01

L3 103 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

161.76

161.97

FILE 'CAPLUS' ENTERED AT 11:58:27 ON 28 NOV 2005

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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 28 Nov 2005 VOL 143 ISS 23

FILE LAST UPDATED: 27 Nov 2005 (20051127/ED)

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L4 4 L3

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L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:1028086 CAPLUS

DN 143:326396

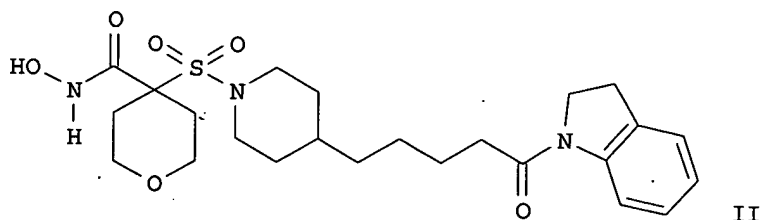
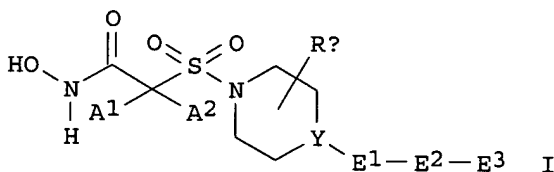
10/700202

TI Preparation of piperidiny- and piperazinyl-sulfonylmethyl hydroxamic
acids and their use as protease inhibitors
IN Mcdonald, Joseph J.; Kassab, Darren J.; Massa, Mark A.; Grapperhaus,
Margaret L.; Schmidt, Michelle A.; Rico, Joseph G.; Mullins, Patrick B.;
Brown, David L.
PA USA
SO U.S. Pat. Appl. Publ., 417 pp., Cont.-in-part of U.S. Ser. No. 618,288.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

APP^S

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005209278	A1	20050922	US 2003-700202	20031103
	US 2005009838	A1	20050113	US 2003-618288	20030425
	WO 2005042521	A2	20050512	WO 2004-US36666	20041103
	WO 2005042521	A3	20050707		
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	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2002-375598P	P	20020425		
	US 2002-380713P	P	20020515		
	US 2002-392021P	P	20020627		
	US 2003-618288	A2	20030425		
	US 2003-700202	A	20031103		

GI



AB Title compds. I [A1 and A2 together with the C to which they are bonded
join to form (un)substituted heterocyclyl or carbocyclyl, or A1 and A2 are
independently selected from H, alkyl, alkoxyalkyl, alkenyl, alkynyl, etc.;
Rx = H, halo, CN, OH, NO₂, alkyl, alkenyl, alkoxy, alkoxyalkyl,

heterocyclyl, etc.; Y = N, CH, or CRx; E1 = (un)substituted carbocyclyl, heterocyclyl, etc.; E2 = O, CO, C(O)O, OC(O), bond, S, etc.; E3 = halo, CN, (un)substituted alkyl, alkenyl, alkynyl, heterocyclyl, heterocyclylalkyl, etc.] and their pharmaceutically acceptable salts are prepd. and disclosed as protease inhibitors. E.g., a multi-step synthesis of II, starting from Et crotyl phosphonate and tert-Bu 4-[(4-formylpiperidin-1-yl)sulfonyl]tetrahydro-2H-pyran-2H-pyran-4-carboxylate, was given. This invention is directed generally to proteinase (also known as 'protease') inhibitors, and more particularly, inhibitors of matrix metalloproteinase (also known as 'matrix metalloproteinase' or 'MMP'), aggrecanase, or TNF-.alpha. convertase activity. In assays to det. inhibition consts. (Ki) against MMP-1, MMP-2, MMP-9, MMP-13 and MMP-14, I possessed values ranging from 0.13->10,000. This invention also is directed to compns. of such hydroxamic acids, intermediates for the syntheses of such hydroxamic acids, methods for making such hydroxamic acids, and methods for treating conditions (particularly pathol. conditions) assocd. with MMP, aggrecanase, or TNF-.alpha. convertase activity.

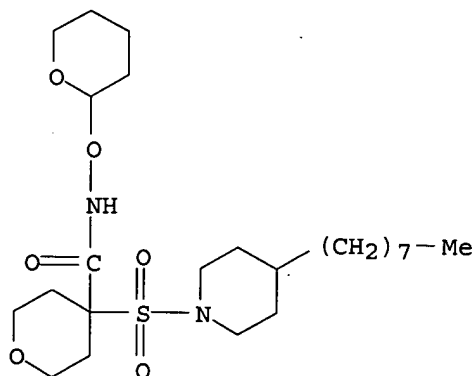
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 622391-15-5P 622391-31-5P 622391-35-9P
 622391-39-3P 622391-43-9P 622391-83-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of piperidinyl- and piperazinyl-sulfonylmethyl hydroxamic acids and their use as matrix metalloproteinase inhibitors)

RN 622387-48-8 CAPLUS

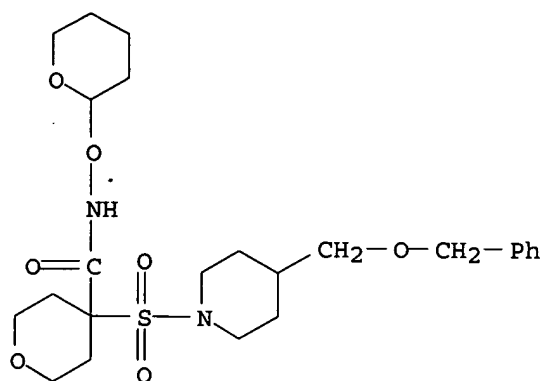
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[(4-octyl-1-piperidinyl)sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622389-78-0 CAPLUS

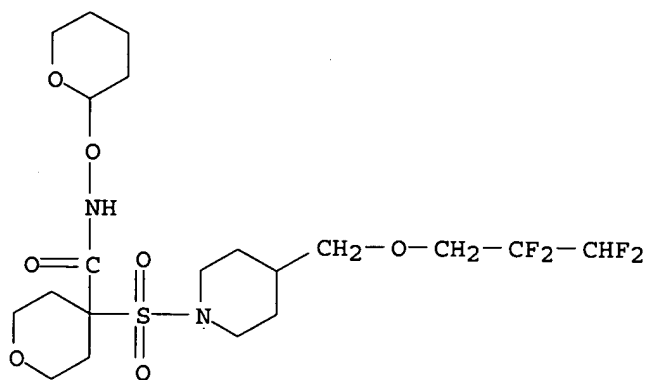
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-[(phenylmethoxy)methyl]-1-piperidinyl)sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)

10/700202



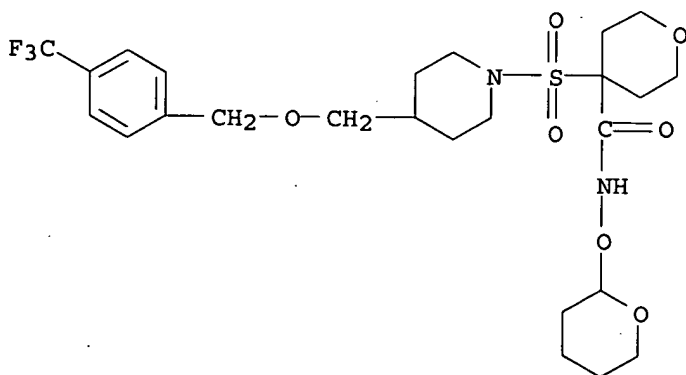
RN 622390-02-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-[(2,2,3,3-tetrafluoropropoxy)methyl]-1-piperidiny]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622390-05-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[[4-(trifluoromethyl)phenyl]methoxy]methyl]-1-piperidiny]sulfonyl]- (9CI) (CA INDEX NAME)

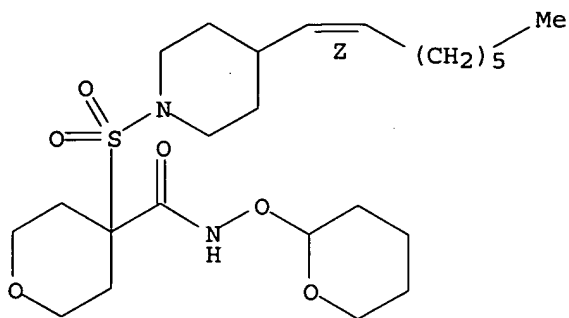


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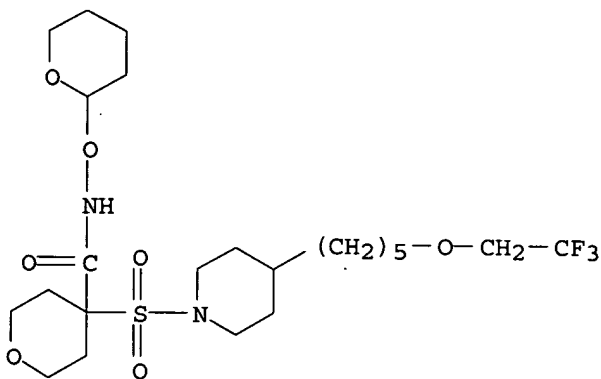
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(1Z)-1-octenyl]-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 622390-55-0 CAPLUS

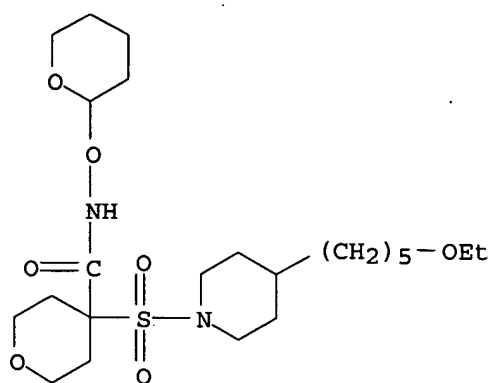
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[5-(2,2,2-trifluoroethoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



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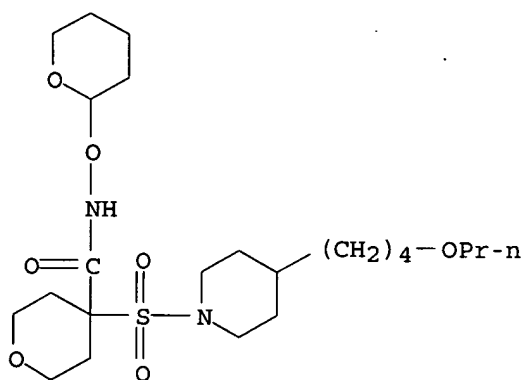
CN 2H-Pyran-4-carboxamide, 4-[[4-(5-ethoxypentyl)-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)

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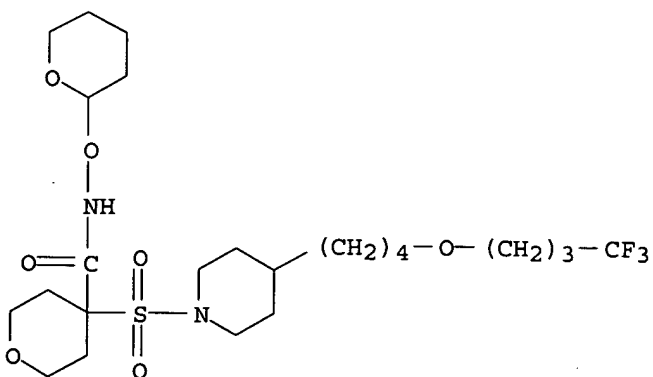
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CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(4-propoxybutyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622390-72-1 CAPLUS

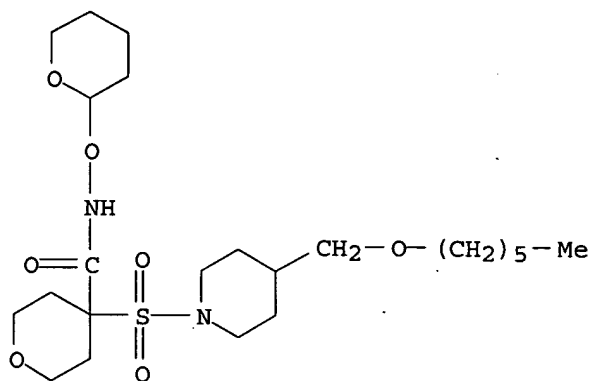
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-(4,4,4-trifluorobutoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



10/700202

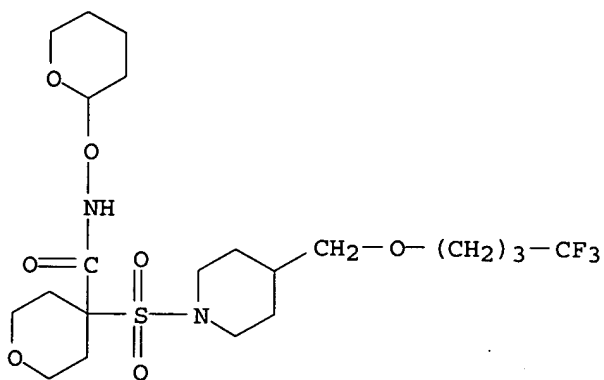
RN 622390-78-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(hexyloxy)methyl]-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI)
(CA INDEX NAME)



RN 622390-81-2 CAPLUS

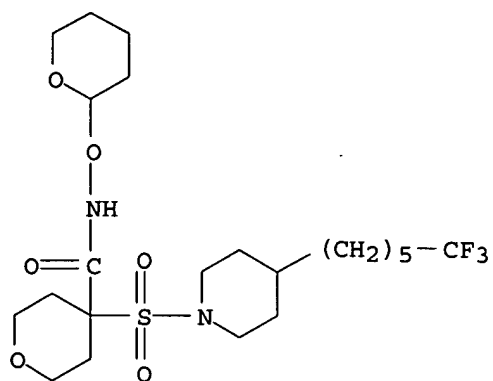
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-
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NAME)



RN 622390-88-9 CAPLUS

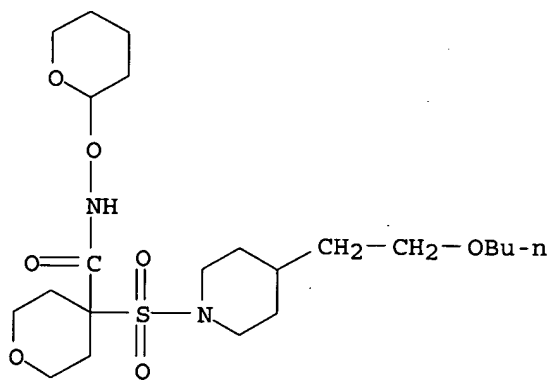
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-(6,6,6-trifluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



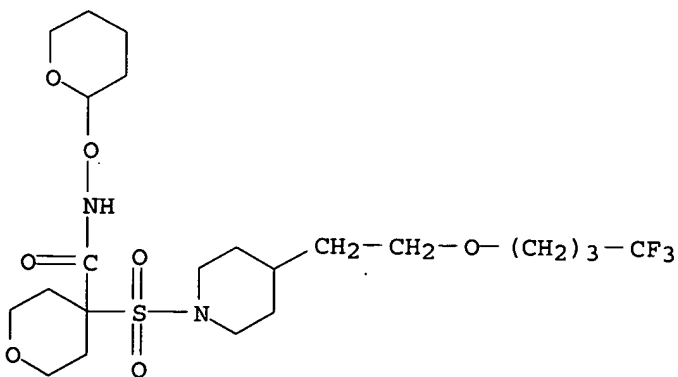
RN 622390-93-6 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(2-butoxyethyl)-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy] - (9CI)
(CA INDEX NAME)



RN 622390-99-2 CAPLUS

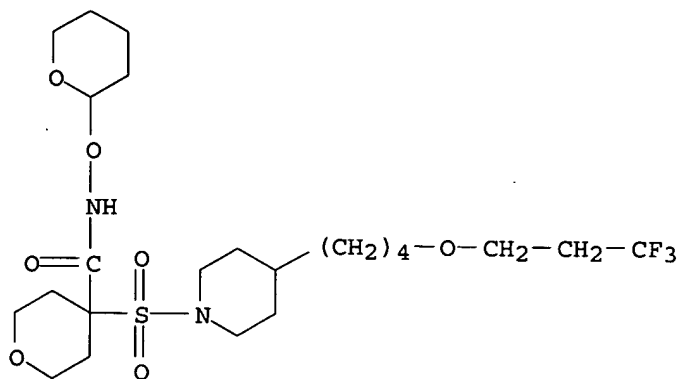
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[2-(4,4,4-trifluorobutoxy)ethyl]-1-piperidinyl]sulfonyl] - (9CI) (CA INDEX NAME)



10/700202

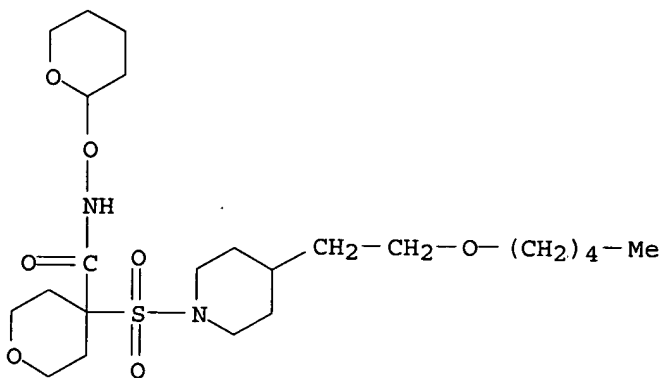
RN 622391-09-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[4-(3,3,3-trifluoropropoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



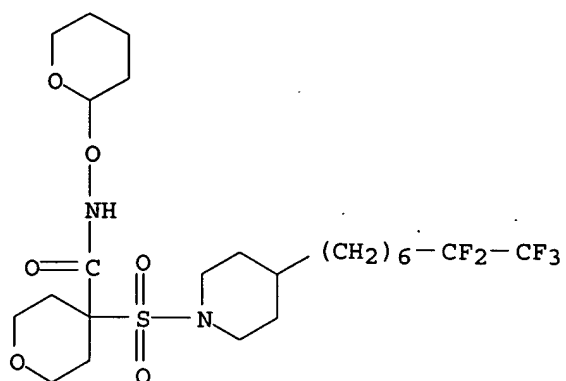
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CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-[2-(pentyloxy)ethyl]-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



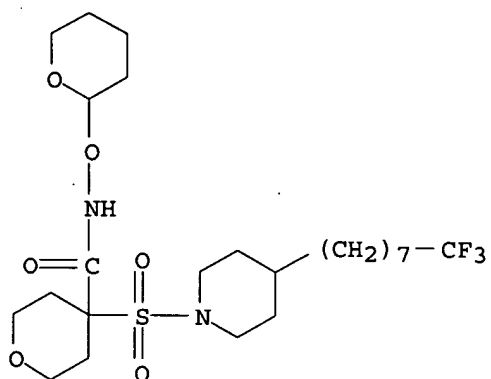
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CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(7,7,8,8,8-pentafluorooctyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



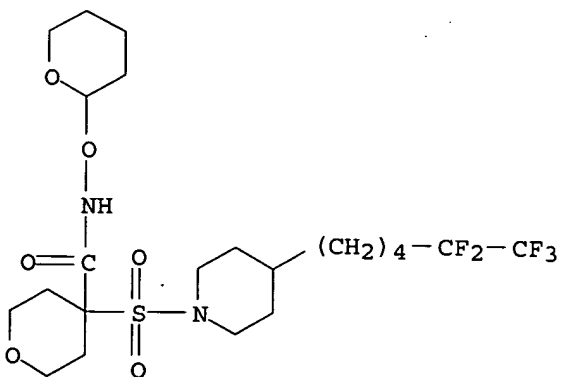
RN 622391-35-9 CAPLUS

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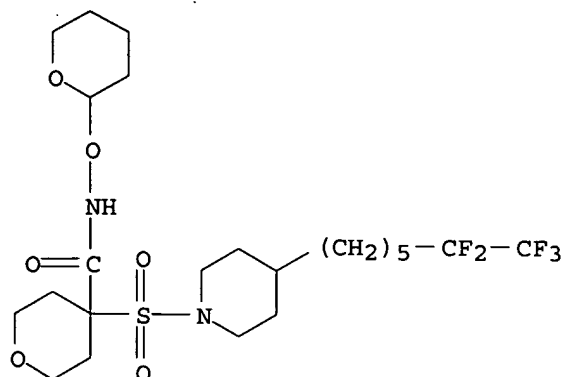
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10/700202

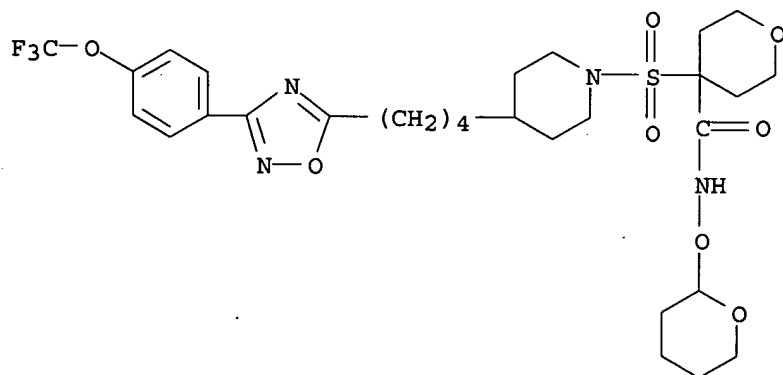
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CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(6,6,7,7,7-pentafluoroheptyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622391-83-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[4-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



IT 622382-02-9P 622385-57-3P 622385-59-5P
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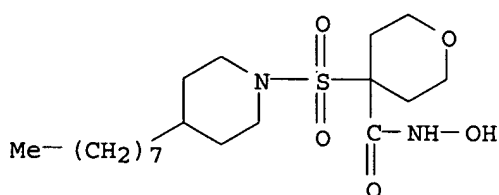
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of piperidinyl- and piperazinyl-sulfonylmethyl hydroxamic acids and their use as matrix metalloproteinase inhibitors)

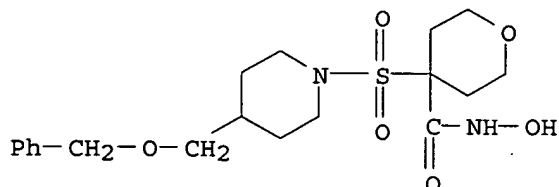
RN 622382-02-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[(4-octyl-1-piperidinyl)sulfonyl]- (9CI) (CA INDEX NAME)



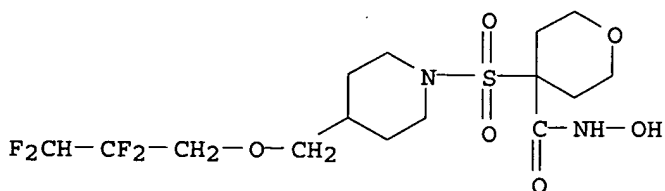
RN 622385-57-3 CAPLUS

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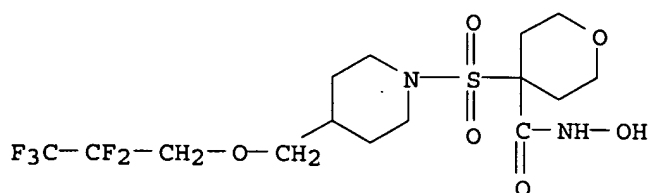
RN 622385-59-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(2,2,3,3-tetrafluoropropoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



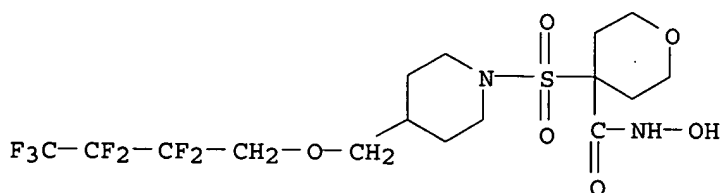
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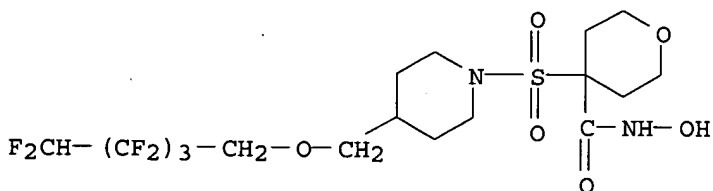
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CN 2H-Pyran-4-carboxamide, 4-[[4-[(2,2,3,3,4,4,4-heptafluorobutoxy)methyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



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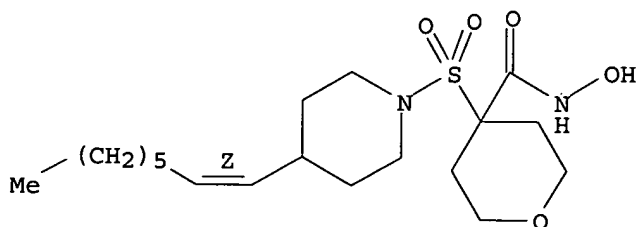
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RN 622385-88-0 CAPLUS

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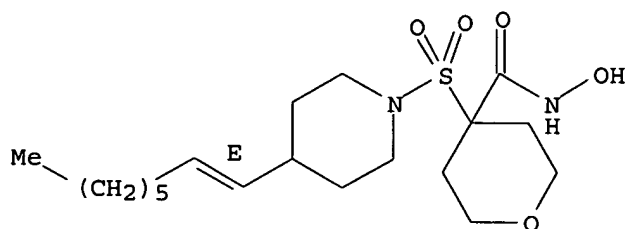
Double bond geometry as shown.



RN 622385-89-1 CAPLUS

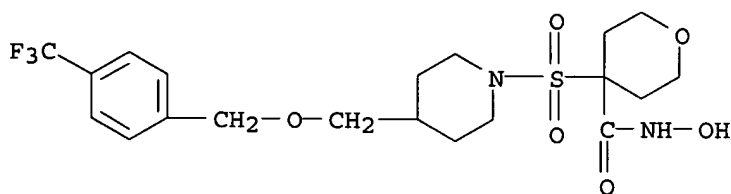
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Double bond geometry as shown.



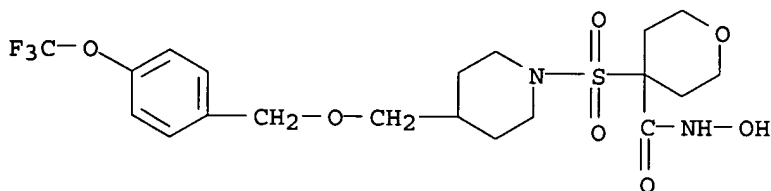
RN 622385-90-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-(trifluoromethyl)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI)
(CA INDEX NAME)



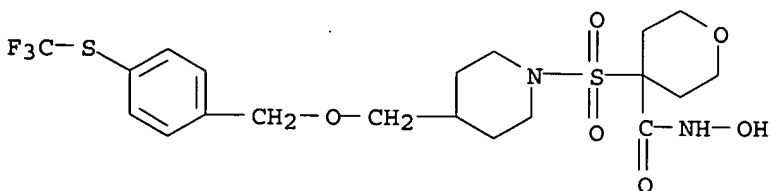
RN 622385-91-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-(trifluoromethoxy)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI)
(CA INDEX NAME)



RN 622385-92-6 CAPLUS

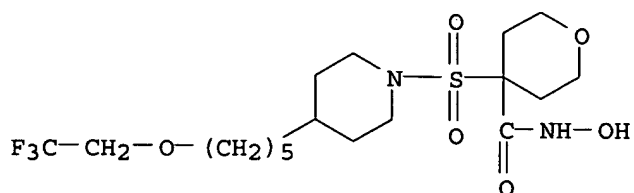
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-[(trifluoromethyl)thio]phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622387-62-6 CAPLUS

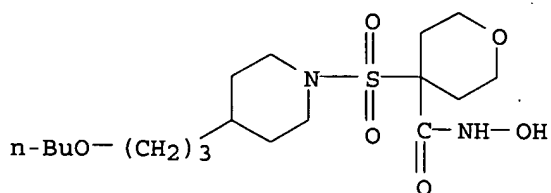
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(2,2,2-trifluoroethoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



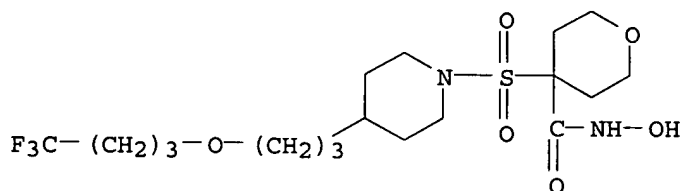
RN 622387-72-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(3-butoxypropyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



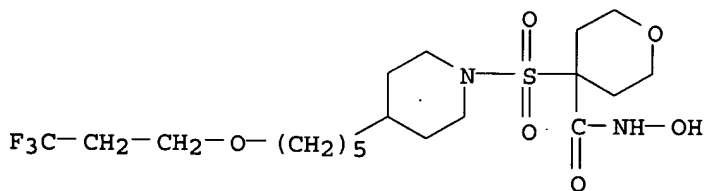
RN 622387-73-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[3-(4,4,4-trifluorobutoxy)propyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622387-74-0 CAPLUS

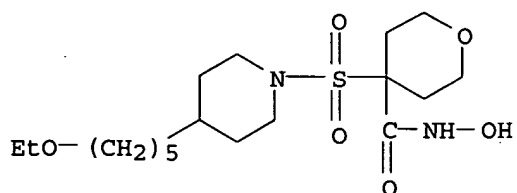
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(3,3,3-trifluoropropoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622387-75-1 CAPLUS

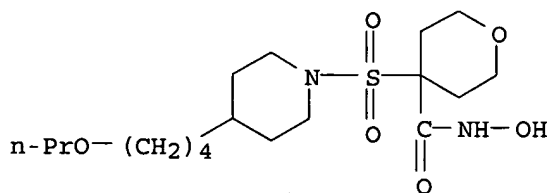
CN 2H-Pyran-4-carboxamide, 4-[[4-(5-ethoxypentyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

10/700202



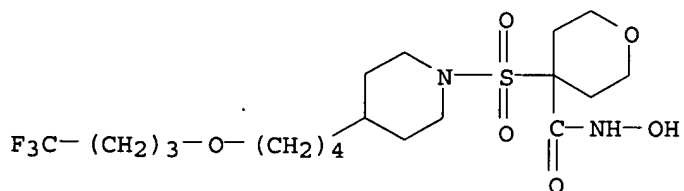
RN 622387-76-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(4-propoxybutyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



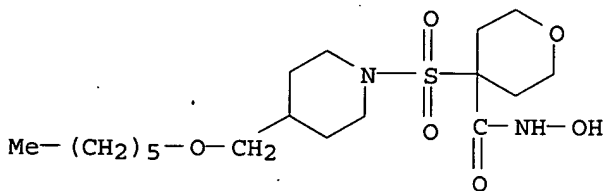
RN 622387-77-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-(4,4,4-trifluorobutoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



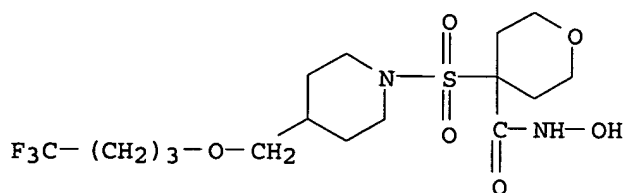
RN 622387-78-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(hexyloxy)methyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



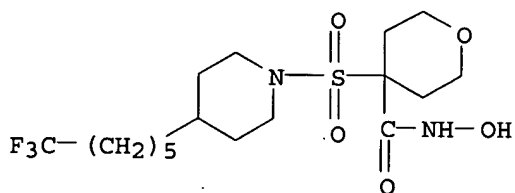
RN 622387-79-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(4,4,4-trifluorobutoxy)methyl]-1-piperidiny]sulfonyl]-(9CI) (CA INDEX NAME)



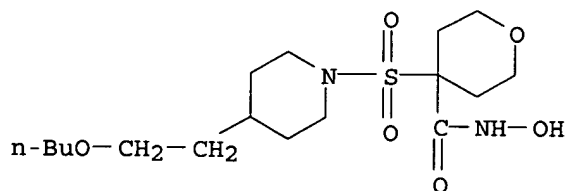
RN 622387-80-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(6,6,6-trifluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



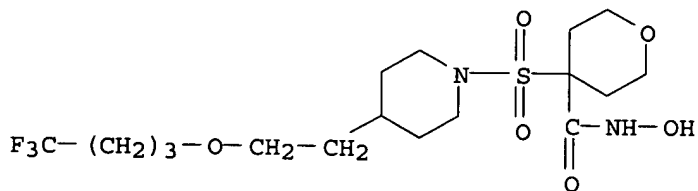
RN 622387-81-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(2-butoxyethyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



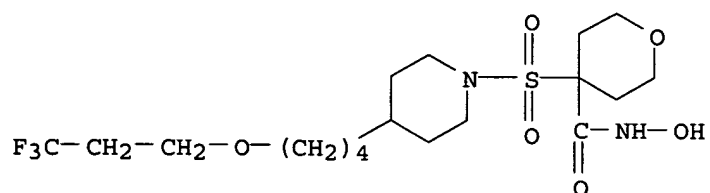
RN 622387-82-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[2-(4,4,4-trifluorobutoxy)ethyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



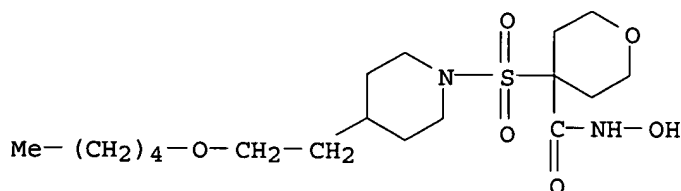
RN 622387-83-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-(3,3,3-trifluoropropoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



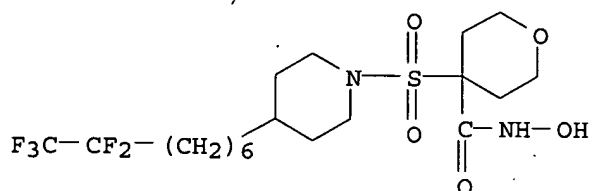
RN 622387-84-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[2-(pentyloxy)ethyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



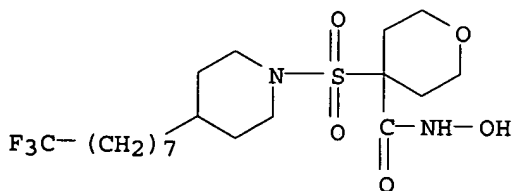
RN 622387-92-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(7,7,8,8,8-pentafluorooctyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



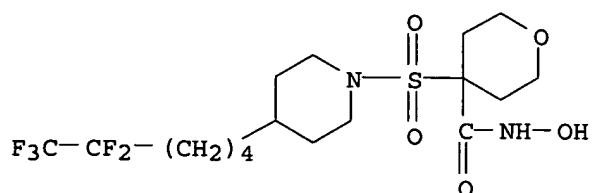
RN 622387-94-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(8,8,8-trifluorooctyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



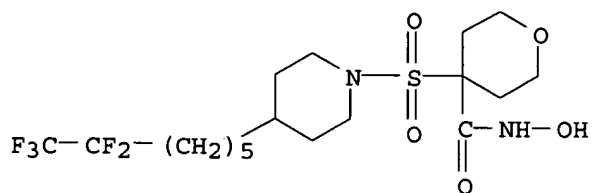
RN 622387-96-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(5,5,6,6,6-pentafluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



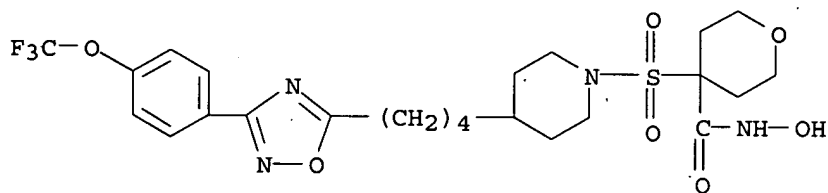
RN 622387-98-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(6,6,7,7,7-pentafluoroheptyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



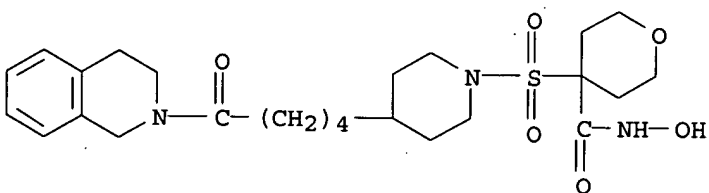
RN 622388-18-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-35-6 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(3,4-dihydro-2(1H)-isoquinolinyl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

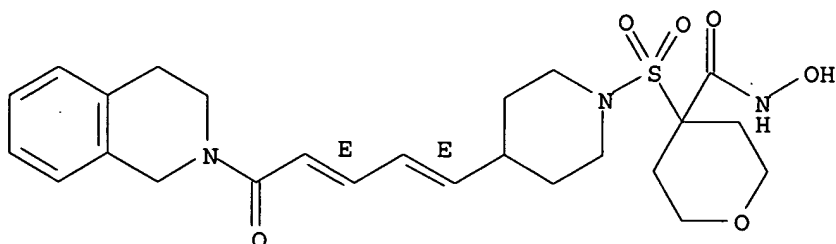


RN 622388-36-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[[(1E,3E)-5-(3,4-dihydro-2(1H)-isoquinolinyl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

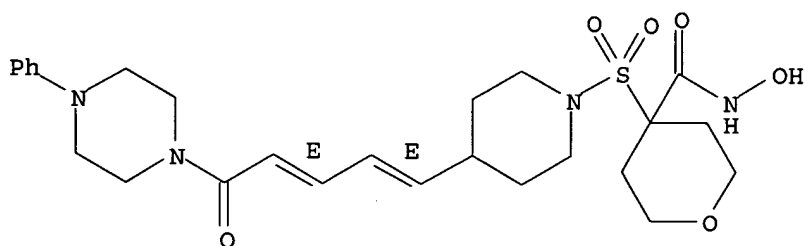
10/700202



RN 622388-37-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-oxo-5-(4-phenyl-1-piperazinyl)-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

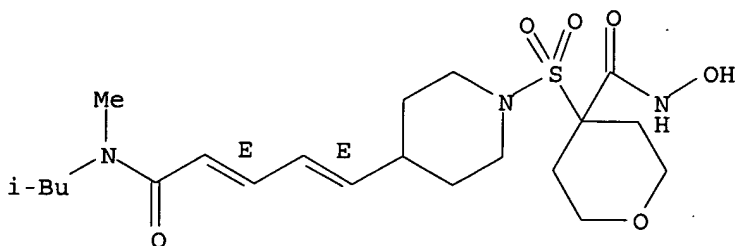
Double bond geometry as shown.



RN 622388-38-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-[methyl(2-methylpropyl)amino]-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

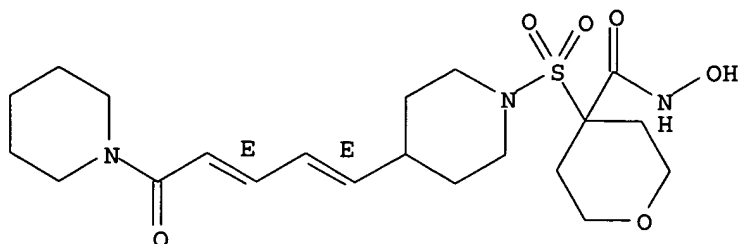


RN 622388-40-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-oxo-5-(1-piperidinyl)-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

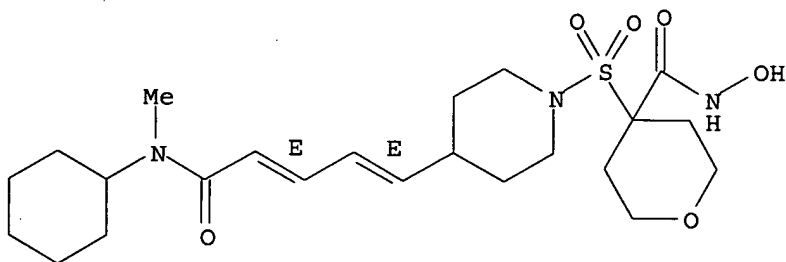
10/700202



RN 622388-42-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(cyclohexylmethylamino)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

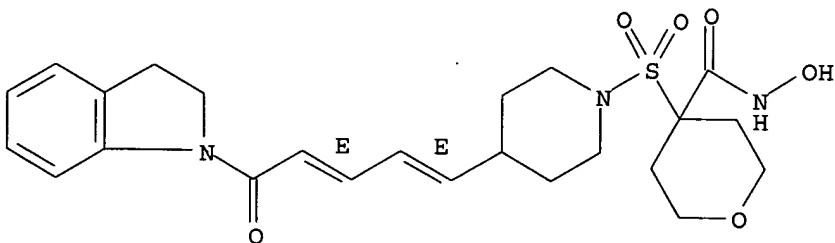
Double bond geometry as shown.



RN 622388-44-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(2,3-dihydro-1H-indol-1-yl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



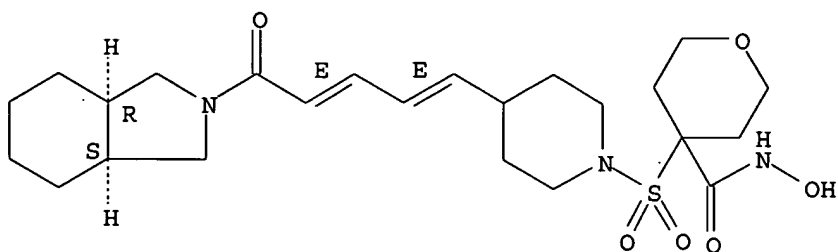
RN 622388-46-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-[(3aR,7aS)-octahydro-2H-isoindol-2-yl]-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

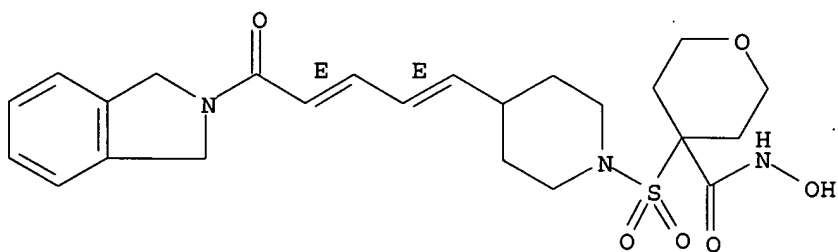
10/700202



RN 622388-47-0 CAPLUS

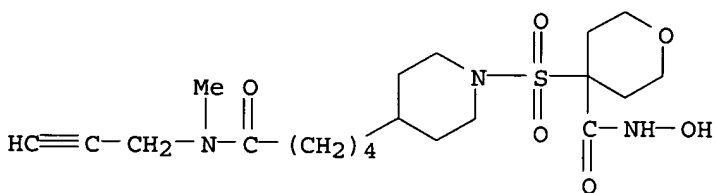
CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(1,3-dihydro-2H-isoindol-2-yl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI)
(CA INDEX NAME)

Double bond geometry as shown.



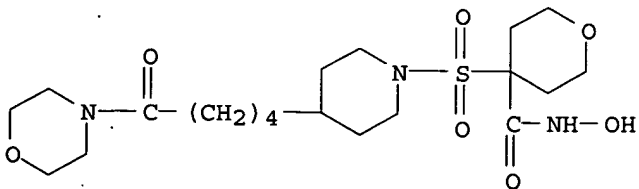
RN 622388-48-1 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-N-2-propynyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-50-5 CAPLUS

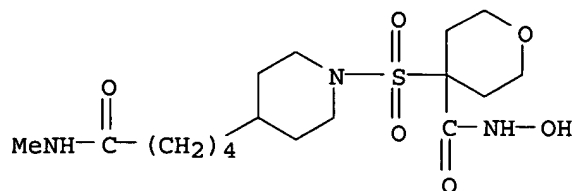
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(4-morpholinyl)-5-oxopentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-51-6 CAPLUS

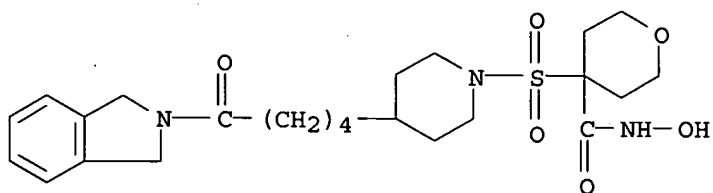
CN 4-Piperidinepentanamide, N-methyl-1-[[tetrahydro-4-

[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



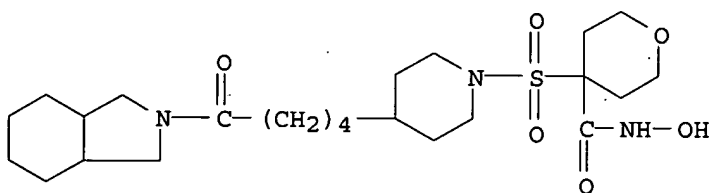
RN 622388-52-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(1,3-dihydro-2H-isoindol-2-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



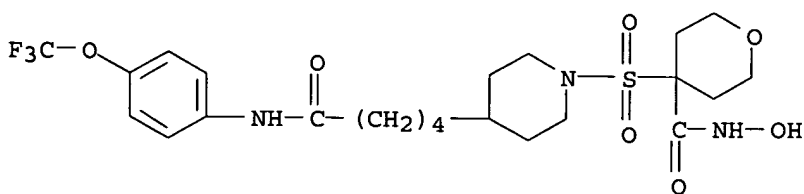
RN 622388-53-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(octahydro-2H-isoindol-2-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



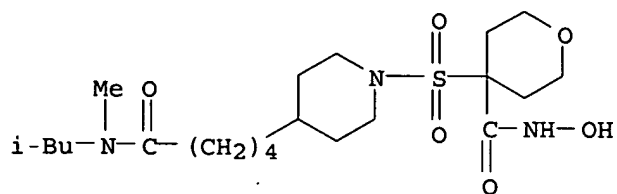
RN 622388-54-9 CAPLUS

CN 4-Piperidinepentanamide, 1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-N-[4-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



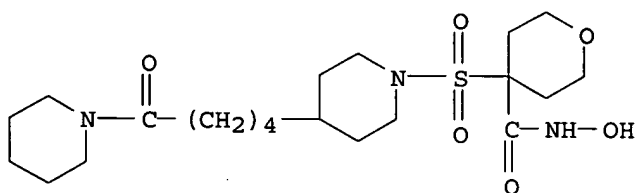
RN 622388-55-0 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-N-(2-methylpropyl)-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



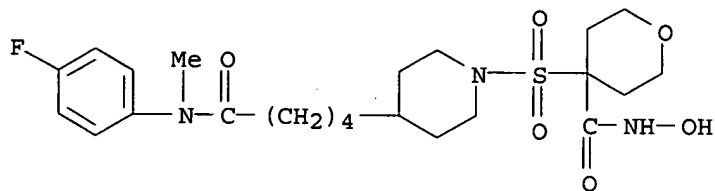
RN 622388-56-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-oxo-5-(1-piperidinyl)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



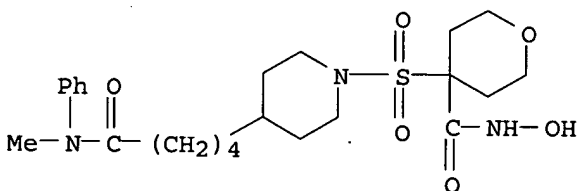
RN 622388-57-2 CAPLUS

CN 4-Piperidinepentanamide, N-(4-fluorophenyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-58-3 CAPLUS

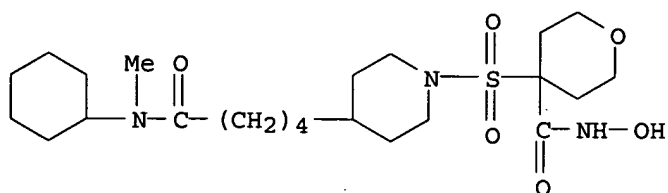
CN 4-Piperidinepentanamide, N-methyl-N-phenyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-60-7 CAPLUS

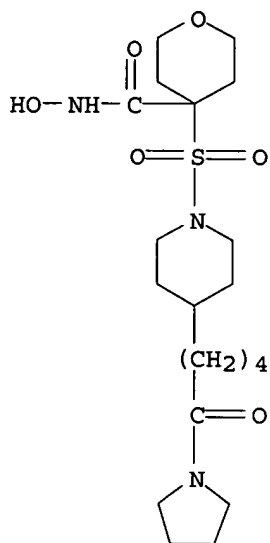
CN 4-Piperidinepentanamide, N-cyclohexyl-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



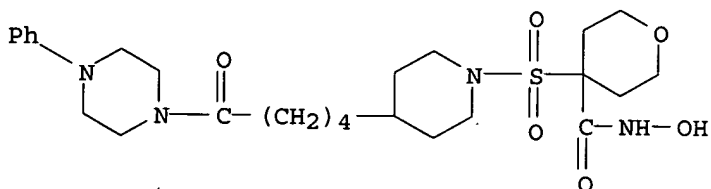
RN 622388-61-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-oxo-5-(1-pyrrolidinyl)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



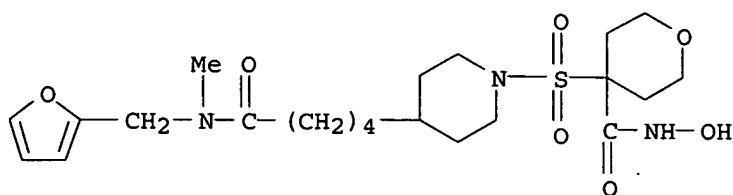
RN 622388-62-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-oxo-5-(4-phenyl-1-piperazinyl)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



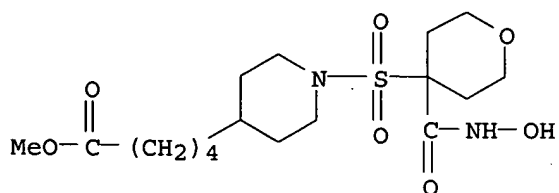
RN 622388-63-0 CAPLUS

CN 4-Piperidinepentanamide, N-(2-furanylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



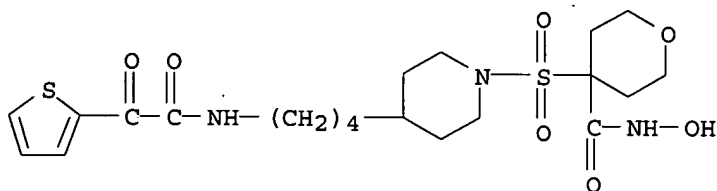
RN 622388-67-4 CAPLUS

CN 4-Piperidinepentanoic acid, 1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



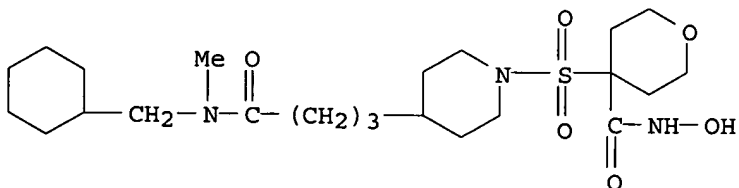
RN 622388-72-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[(oxo-2-thienylacetyl)amino]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



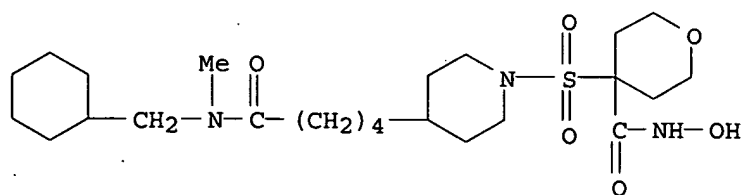
RN 622388-75-4 CAPLUS

CN 4-Piperidinebutanamide, N-(cyclohexylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



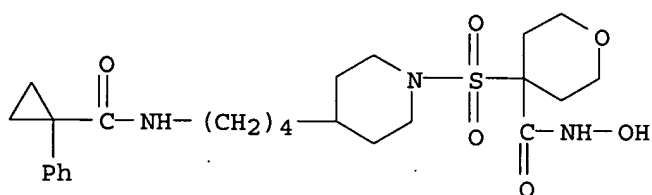
RN 622388-76-5 CAPLUS

CN 4-Piperidinepentanamide, N-(cyclohexylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



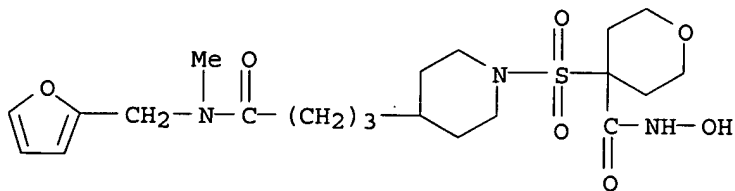
RN 622388-79-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[[[1-phenylcyclopropyl]carbonyl]amino]butyl]-1-piperidinyl]sulfonyl]- (9CI)
(CA INDEX NAME)



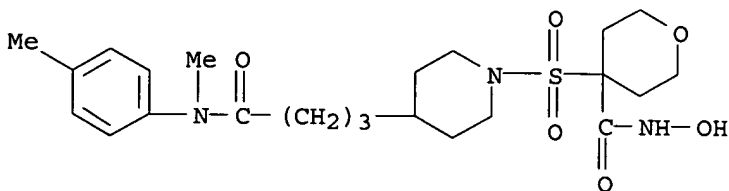
RN 622389-05-3 CAPLUS

CN 4-Piperidinebutanamide, N-(2-furanylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



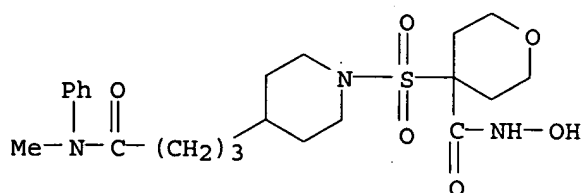
RN 622389-06-4 CAPLUS

CN 4-Piperidinebutanamide, N-methyl-N-(4-methylphenyl)-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

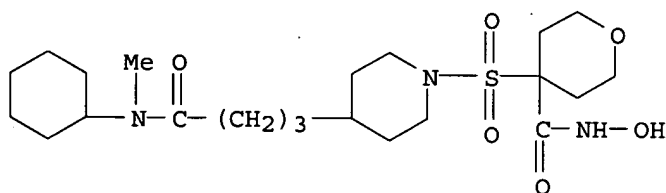


RN 622389-07-5 CAPLUS

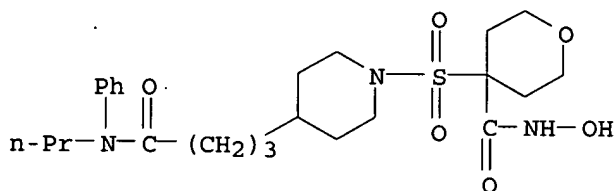
CN 4-Piperidinebutanamide, N-methyl-N-phenyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



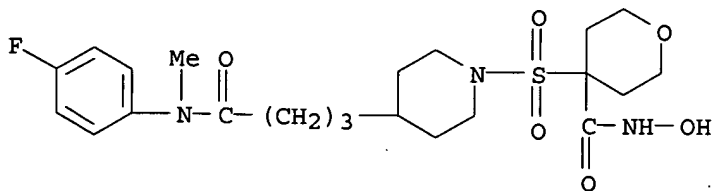
RN 622389-08-6 CAPLUS

CN 4-Piperidinebutanamide, N-cyclohexyl-N-methyl-1-[[tetrahydro-4-
[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

RN 622389-09-7 CAPLUS

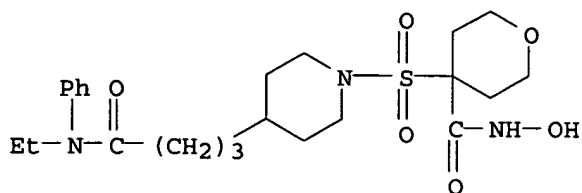
CN 4-Piperidinebutanamide, N-phenyl-N-propyl-1-[[tetrahydro-4-
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RN 622389-10-0 CAPLUS

CN 4-Piperidinebutanamide, N-(4-fluorophenyl)-N-methyl-1-[[tetrahydro-4-
[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

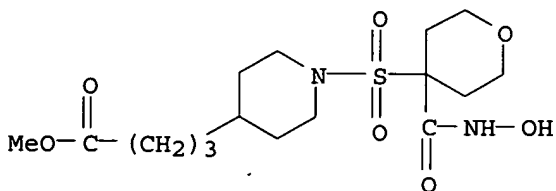
RN 622389-11-1 CAPLUS

CN 4-Piperidinebutanamide, N-ethyl-N-phenyl-1-[[tetrahydro-4-
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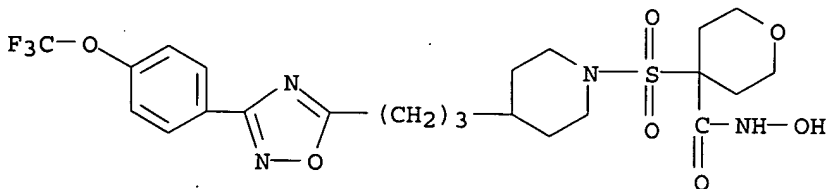
RN 622389-12-2 CAPLUS

CN 4-Piperidinebutanoic acid, 1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



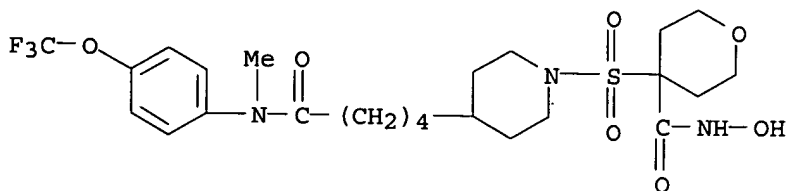
RN 622389-24-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[3-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]propyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622389-27-9 CAPLUS

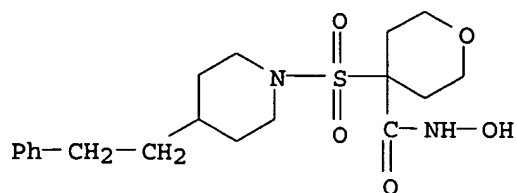
CN 4-Piperidinepentanamide, N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-N-[4-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 622389-50-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(2-phenylethyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

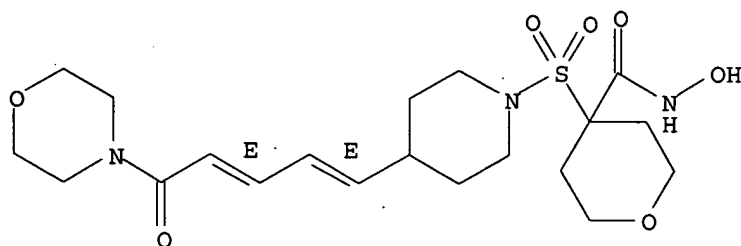
10/700202



RN 622389-73-5 CAPLUS

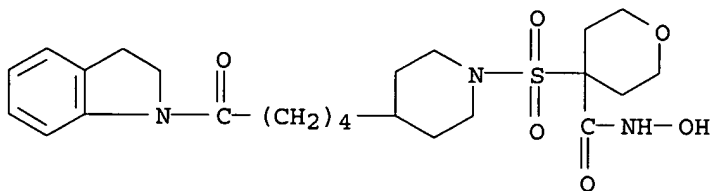
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-(4-morpholinyl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 851771-04-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(2,3-dihydro-1H-indol-1-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



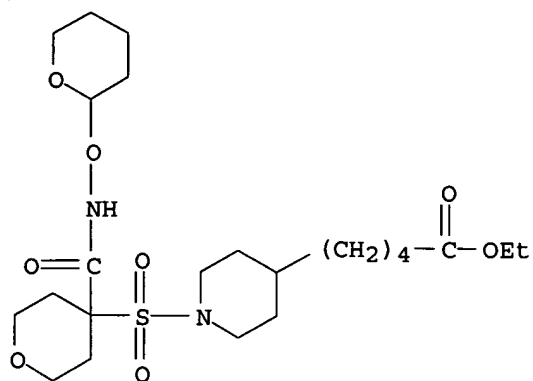
IT 851771-07-8P 851771-08-9P 851771-09-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of piperidinyl- and piperazinyl-sulfonylmethyl hydroxamic acids and their use as matrix metalloproteinase inhibitors)

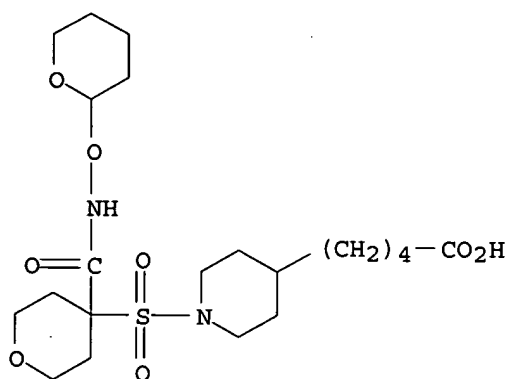
RN 851771-07-8 CAPLUS

CN 4-Piperidinepentanoic acid, 1-[[tetrahydro-4-[[[(tetrahydro-2H-pyran-2-yl)oxy]amino]carbonyl]-2H-pyran-4-yl]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)



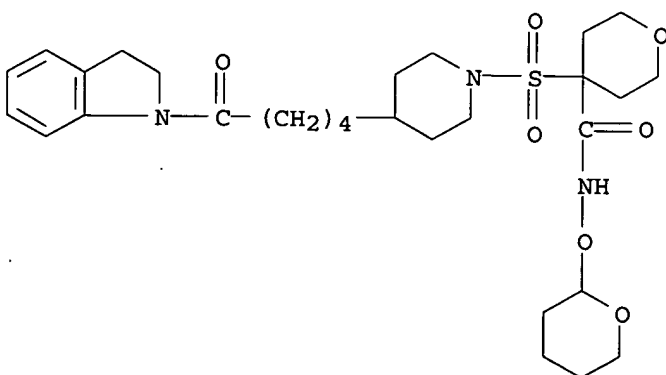
RN 851771-08-9 CAPLUS

CN 4-Piperidinepentanoic acid, 1-[[[tetrahydro-4-[[[(tetrahydro-2H-pyran-2-yl)oxy]amino]carbonyl]-2H-pyran-4-yl]sulfonyl]-(9CI) (CA INDEX NAME)



RN 851771-09-0 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(2,3-dihydro-1H-indol-1-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-(9CI) (CA INDEX NAME)



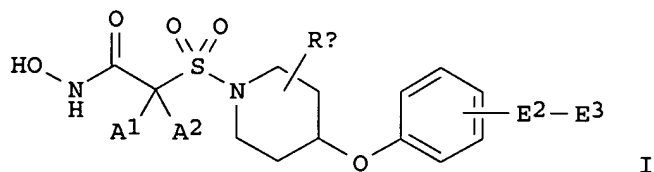
10/700202

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:409509 CAPLUS
DN 142:463765
TI Preparation of piperidinyl- and piperazinylsulfonylmethyl hydroxamic acids
and their use as protease inhibitors
IN Brown, David L.; Grapperhaus, Margaret L.; Kassab, Darren J.; Massa, Mark
A.; McDonald, Joseph J.; Mullins, Patrick B.; Rico, Joseph G.; Schmidt,
Michelle A.
PA Pharmacia Corporation, USA
SO PCT Int. Appl., 644 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

SAME IE

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005042521	A2	20050512	WO 2004-US36666	20041103
	WO 2005042521	A3	20050707		
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	US 2005209278	A1	20050922	US 2003-700202	20031103
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	US 2002-375598P	P	20020425		
	US 2002-380713P	P	20020515		
	US 2002-392021P	P	20020627		
	US 2003-618288	A2	20030425		
OS	MARPAT 142:463765				
GI					

parent



AB Title compds. I [A1-2 = H, alkyl, alkoxyalkyl, etc.; Rx = halo, CN, OH, NO₂, etc.; E2 = CO, COO, OCO, amino, etc.; E3 = alkyl, alkenyl, alkynyl, etc.] are prep'd. For instance, 4-[[4-(5-butylpyrazin-2-yl)piperazin-1-yl]sulfonyl]-N-(hydroxy)tetrahydro-2H-pyran-4-carboxamide.bul.2HCl (II) is prep'd. in 8 steps from 1-(tert-butoxycarbonyl)piperazine, 2-chloropyrazine, butylmagnesium chloride, bis(2-bromoethyl)ether and O-(tetrahydro-2H-pyran-2-yl)hydroxylamine. II exhibits K_i = >10,000 nM for MMP-1, 1.52 nM for MMP-2, 0.696 nM for MMP-9, 1.82 nM for MMP-13 and 4290 nM for MMP-14. I are useful for the treatment of conditions assocd. with MMP activity and/or aggrecanase activity.

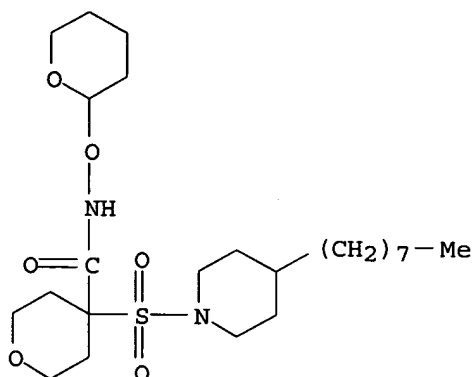
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 622391-39-3P 622391-43-9P 622391-83-7P
 851771-02-3P 851771-07-8P 851771-08-9P
 851771-09-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of piperidinyl- and piperazinyl-sulfonylmethyl hydroxamic acids and their use as matrix metalloproteinase inhibitors)

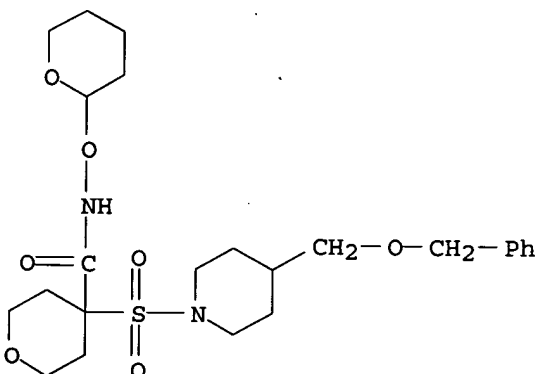
RN 622387-48-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(octyl-1-piperidinyl)sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622389-78-0 CAPLUS

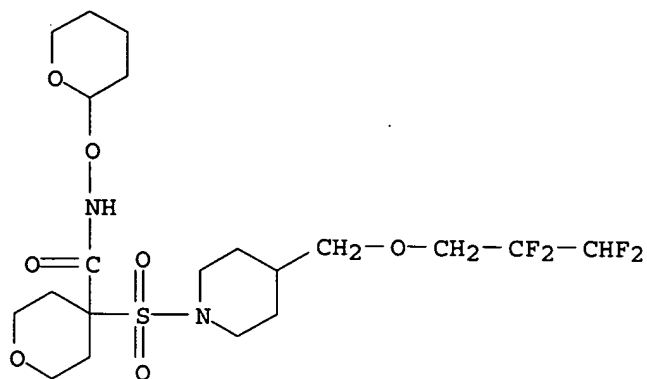
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-[(phenylmethoxy)methyl]-1-piperidinyl)sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622390-02-7 CAPLUS

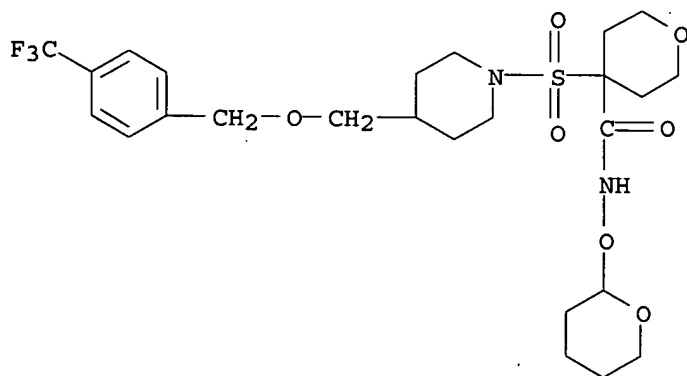
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-[(2,2,3,3-tetrafluoropropoxy)methyl]-1-piperidinyl)sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)

10/700202



RN 622390-05-0 CAPLUS

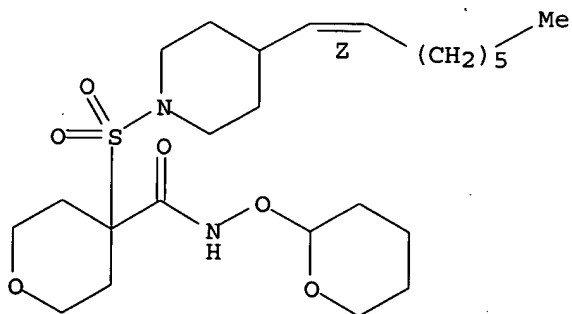
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[[[4-(trifluoromethyl)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622390-07-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(1Z)-1-octenyl-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)

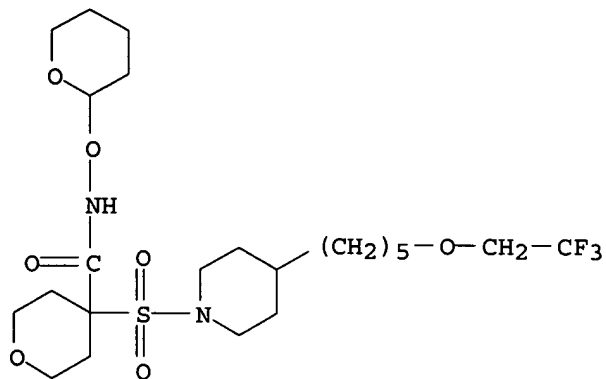
Double bond geometry as shown.



RN 622390-55-0 CAPLUS

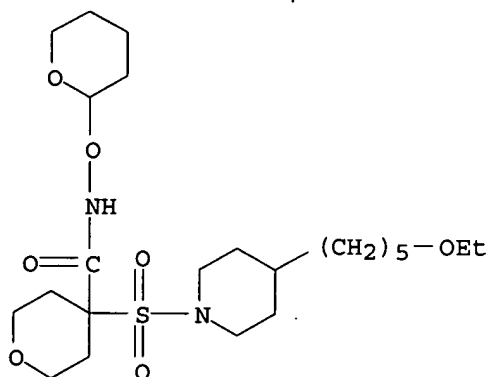
10/700202

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[5-(2,2,2-trifluoroethoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



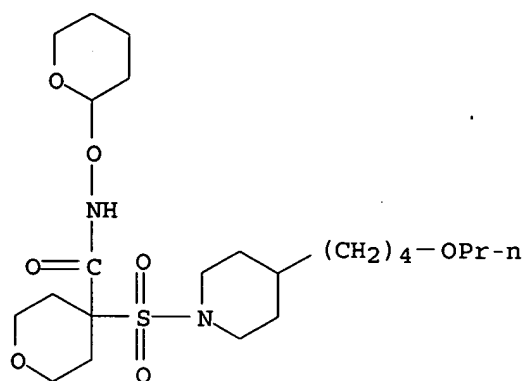
RN 622390-62-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(5-ethoxypentyl)-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



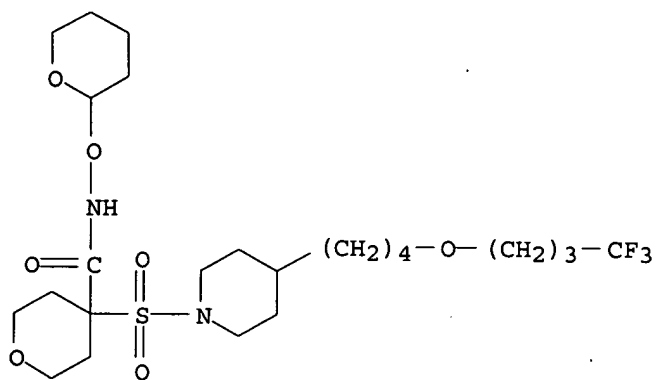
RN 622390-68-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(4-propoxybutyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



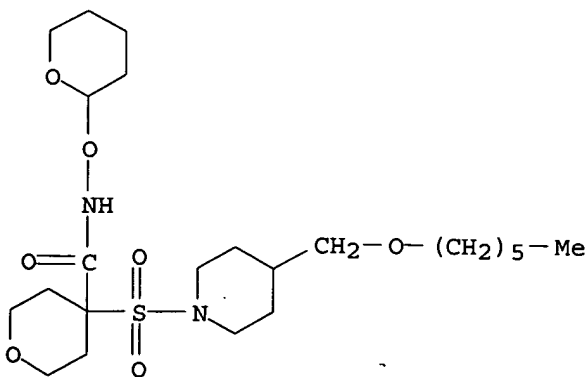
RN 622390-72-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-
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NAME)



RN 622390-78-7 CAPLUS

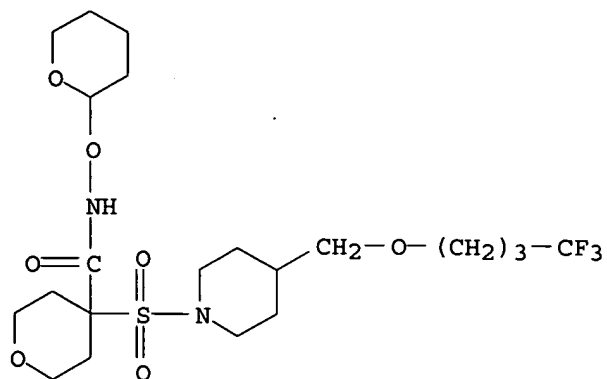
CN 2H-Pyran-4-carboxamide, 4-[[4-[(hexyloxy)methyl]-1-
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(CA INDEX NAME)



10/700202

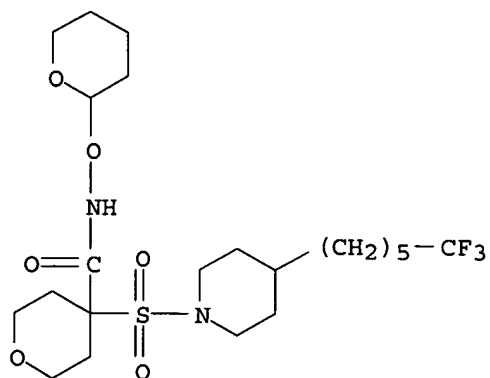
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RN 622390-88-9 CAPLUS

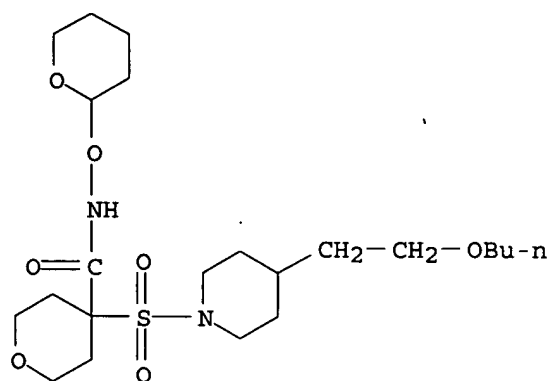
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-(6,6,6-trifluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622390-93-6 CAPLUS

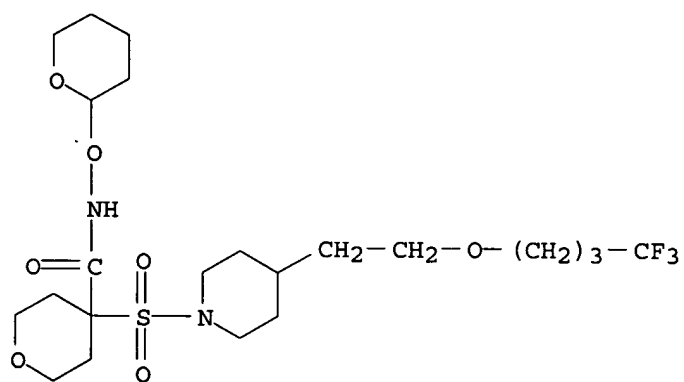
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10/700202



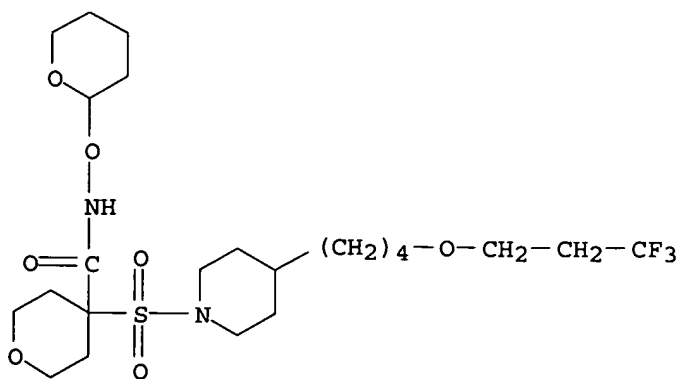
RN 622390-99-2 CAPLUS

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RN 622391-09-7 CAPLUS

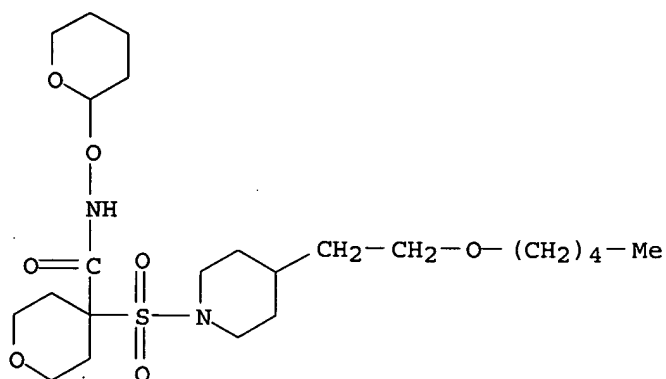
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[4-(3,3,3-trifluoropropoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



10/700202

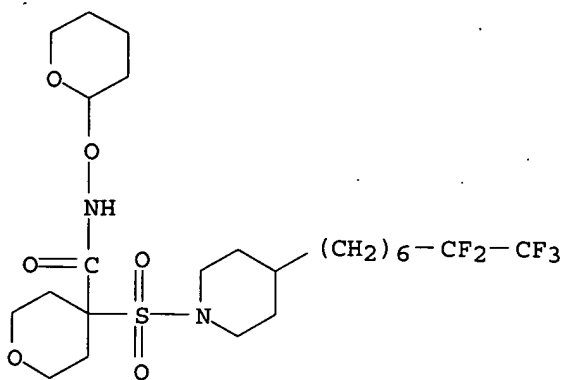
RN 622391-15-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-[2-(pentyloxy)ethyl]-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



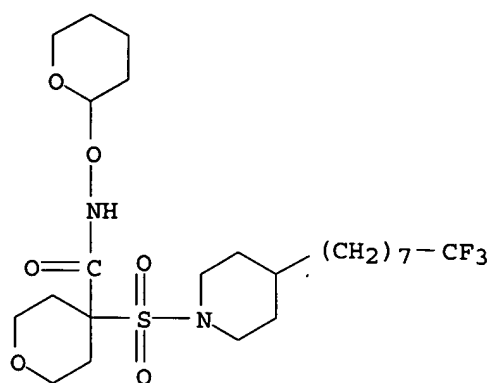
RN 622391-31-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(7,7,8,8,8-pentafluorooctyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



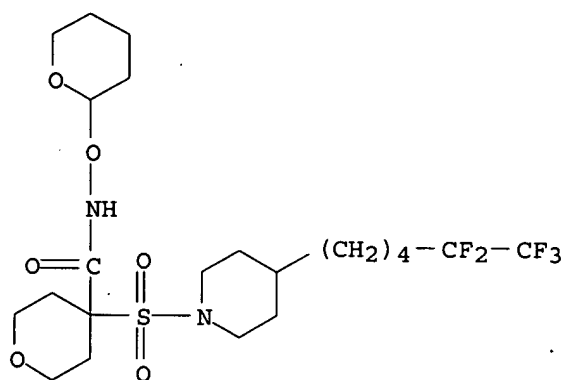
RN 622391-35-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-(8,8,8-trifluorooctyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



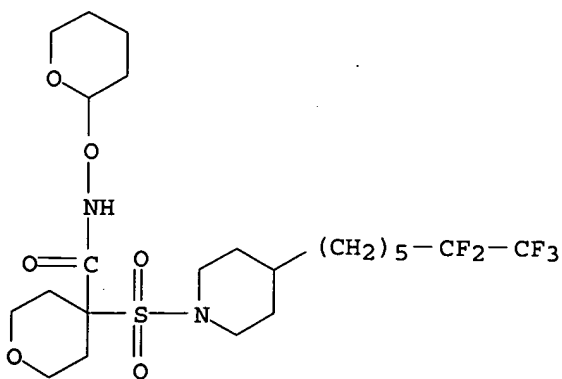
RN 622391-39-3 CAPLUS

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RN 622391-43-9 CAPLUS

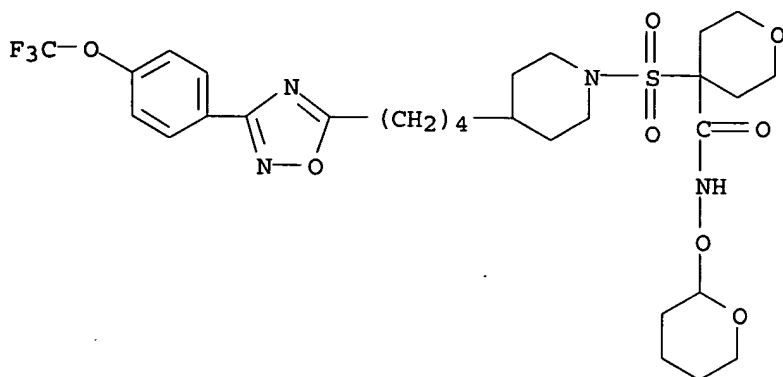
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(6,6,7,7,7-pentafluoroheptyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]-(9CI) (CA INDEX NAME)



10/700202

RN 622391-83-7 CAPLUS

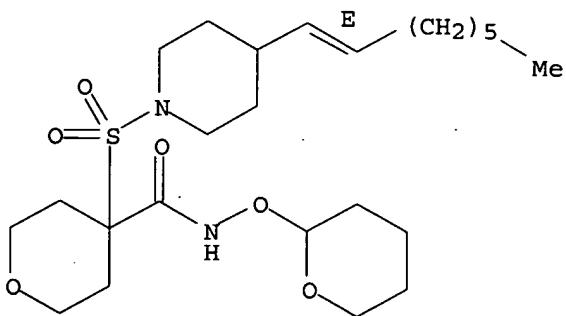
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[4-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 851771-02-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(1E)-1-octenyl-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)

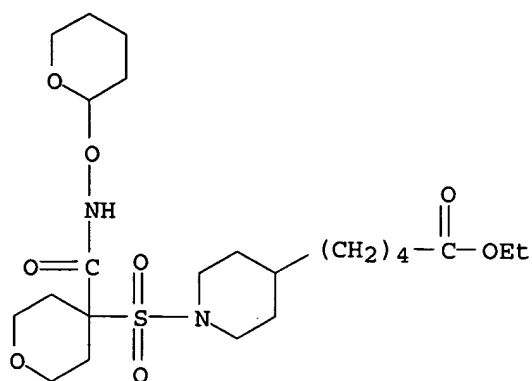
Double bond geometry as shown.



RN 851771-07-8 CAPLUS

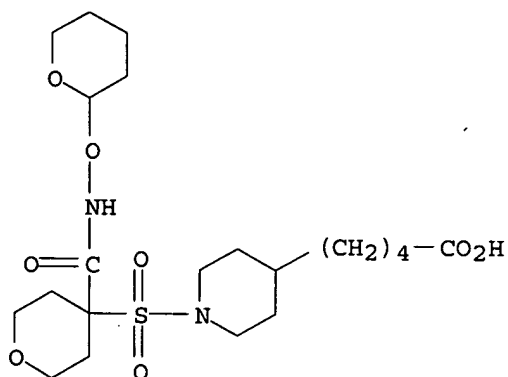
CN 4-Piperidinepentanoic acid, 1-[[[tetrahydro-4-[[[tetrahydro-2H-pyran-2-yl)oxy]amino]carbonyl]-2H-pyran-4-yl]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

10/700202



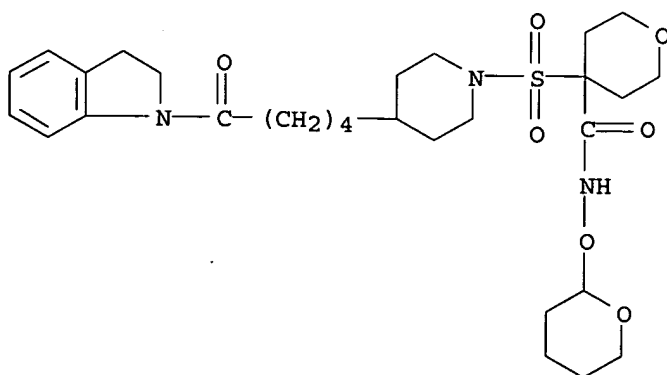
RN 851771-08-9 CAPLUS

CN 4-Piperidinepentanoic acid, 1-[[[tetrahydro-4-[[[(tetrahydro-2H-pyran-2-yl)oxy]amino]carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 851771-09-0 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(2,3-dihydro-1H-indol-1-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



IT 622382-02-9P 622385-57-3P 622385-59-5P

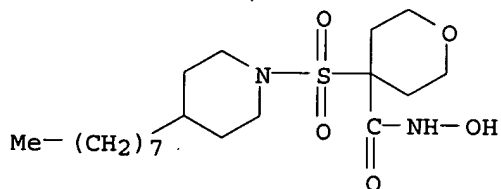
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 622387-78-4P 622387-79-5P 622387-80-8P
 622387-81-9P 622387-82-0P 622387-83-1P
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 622387-96-6P 622387-98-8P 622388-18-5P
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 622389-10-0P 622389-11-1P 622389-12-2P
 622389-24-6P 622389-27-9P 622389-50-8P
 622389-73-5P 851771-04-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(prepn. of piperidinyl- and piperazinyl-sulfonylmethyl hydroxamic acids
 and their use as matrix metalloproteinase inhibitors)

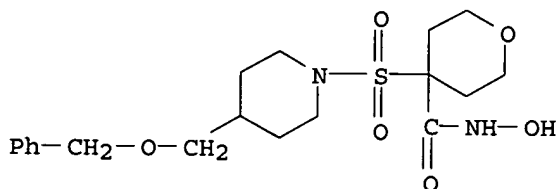
RN 622382-02-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[(4-octyl-1-
 piperidinyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 622385-57-3 CAPLUS

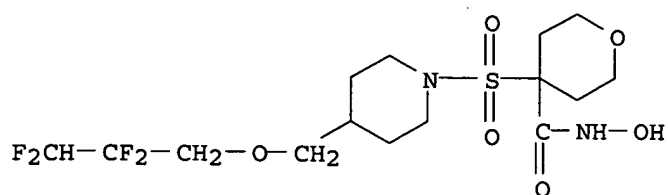
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(phenylmethoxy)methyl]-
 1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622385-59-5 CAPLUS

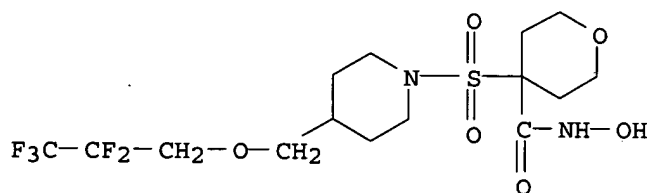
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(2,2,3,3-
 tetrafluoropropoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



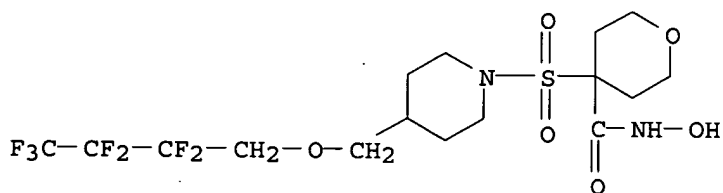
RN 622385-60-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(2,2,3,3,3-pentafluoropropoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



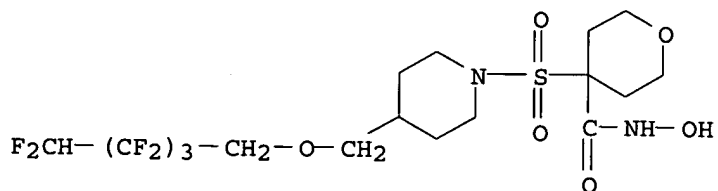
RN 622385-61-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(2,2,3,3,4,4,4-heptafluorobutoxy)methyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



RN 622385-62-0 CAPLUS

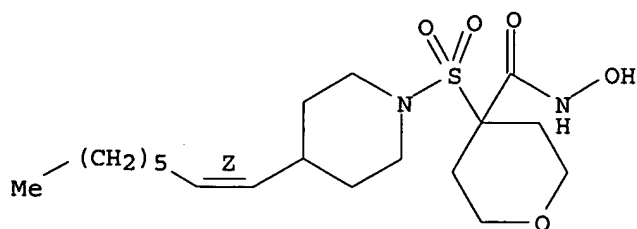
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[(2,2,3,3,4,4,5,5-octafluoropentyl)oxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622385-88-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(1Z)-1-octenyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

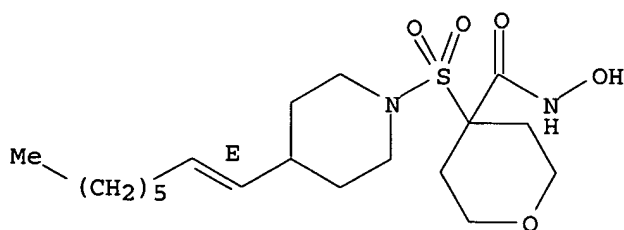
Double bond geometry as shown.



RN 622385-89-1 CAPLUS

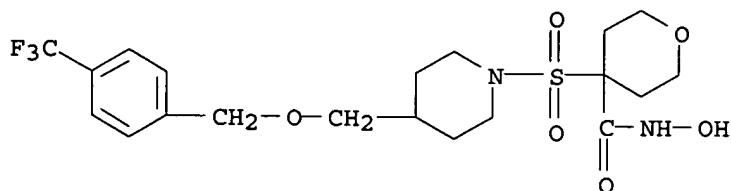
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(1E)-1-octenyl]-1-piperidinyl]sulfonyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



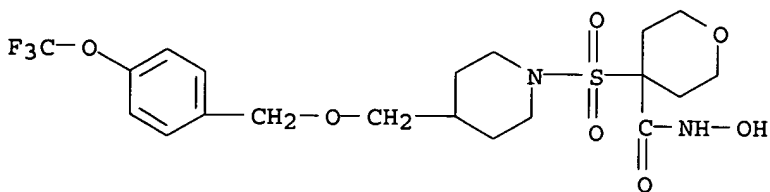
RN 622385-90-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-(trifluoromethyl)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622385-91-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-(trifluoromethoxy)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

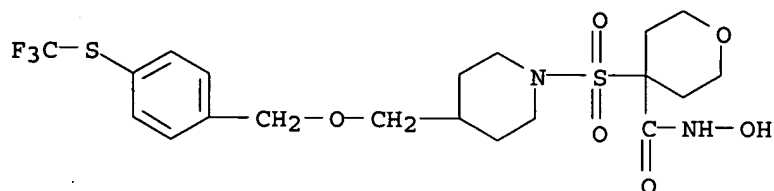


RN 622385-92-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-(trifluoromethylthio)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]-

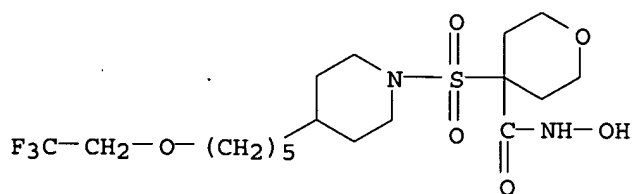
10/700202

(9CI) (CA INDEX NAME)



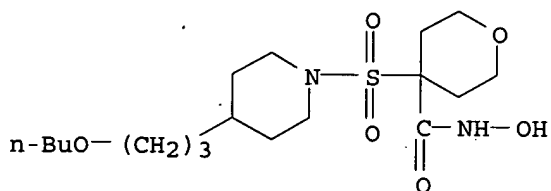
RN 622387-62-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(2,2,2-trifluoroethoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



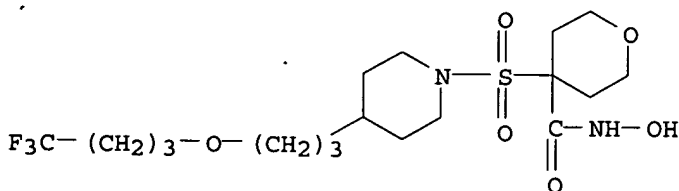
RN 622387-72-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(3-butoxypropyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



RN 622387-73-9 CAPLUS

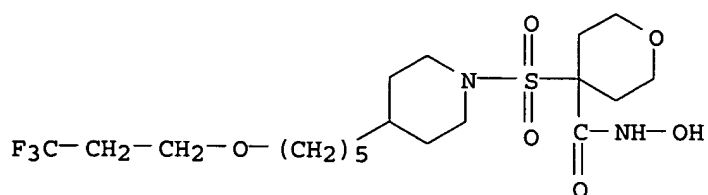
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[3-(4,4,4-trifluorobutoxy)propyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622387-74-0 CAPLUS

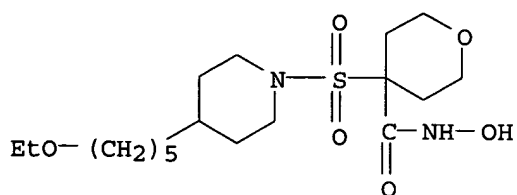
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(3,3,3-trifluoropropoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



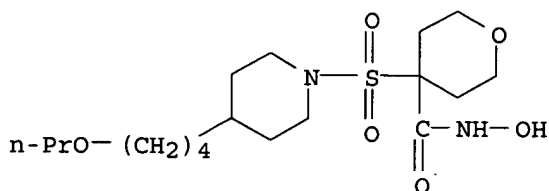
RN 622387-75-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(5-ethoxypentyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



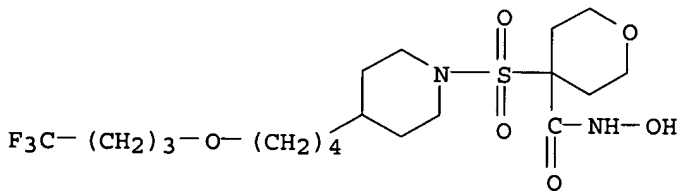
RN 622387-76-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(4-propoxybutyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



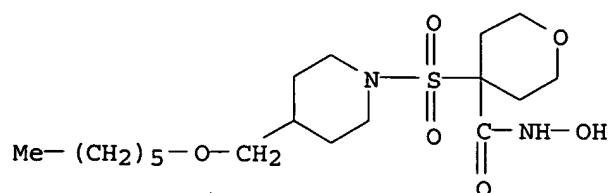
RN 622387-77-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-(4,4,4-trifluorobutoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



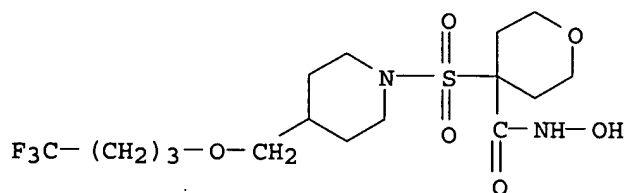
RN 622387-78-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(hexyloxy)methyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



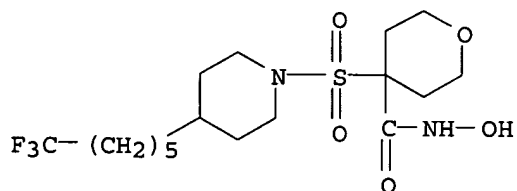
RN 622387-79-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(4,4,4-trifluorobutoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



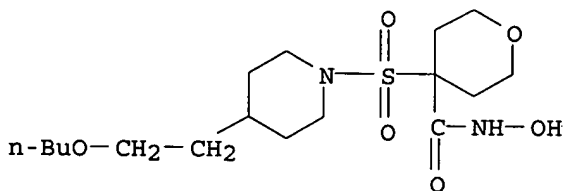
RN 622387-80-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(6,6,6-trifluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622387-81-9 CAPLUS

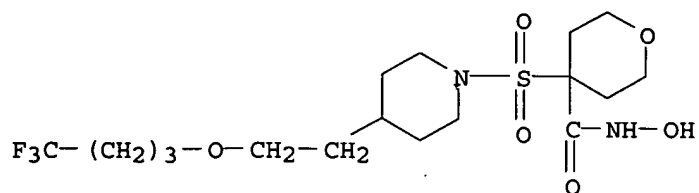
CN 2H-Pyran-4-carboxamide, 4-[[4-(2-butoxyethyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



RN 622387-82-0 CAPLUS

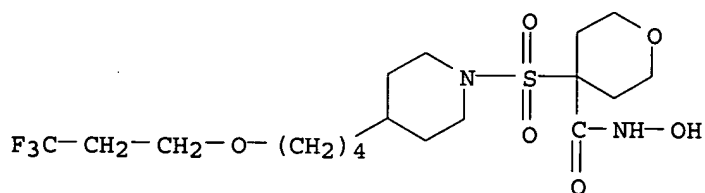
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[2-(4,4,4-trifluorobutoxy)ethyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



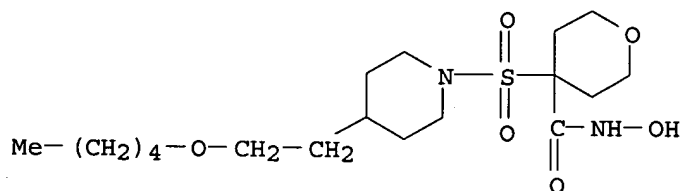
RN 622387-83-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-(3,3,3-trifluoropropoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



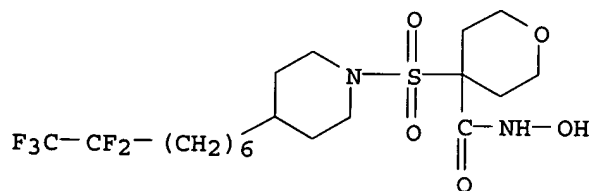
RN 622387-84-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[2-(pentyloxy)ethyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



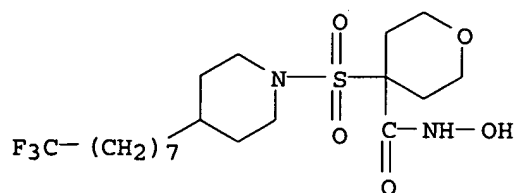
RN 622387-92-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(7,7,8,8,8-pentafluorooctyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



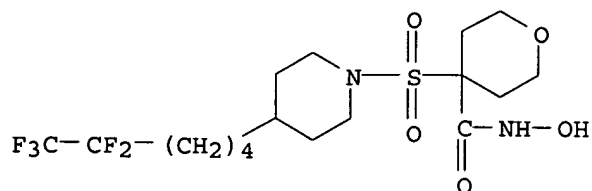
RN 622387-94-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(8,8,8-trifluorooctyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



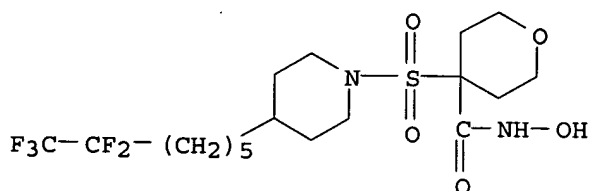
RN 622387-96-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(5,5,6,6,6-pentafluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



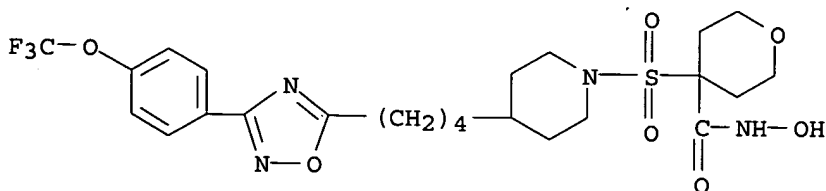
RN 622387-98-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(6,6,7,7,7-pentafluoroheptyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-18-5 CAPLUS

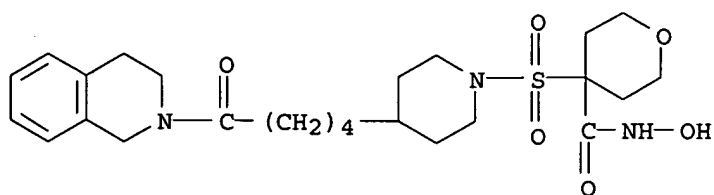
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-35-6 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(3,4-dihydro-2(1H)-isoquinolinyl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

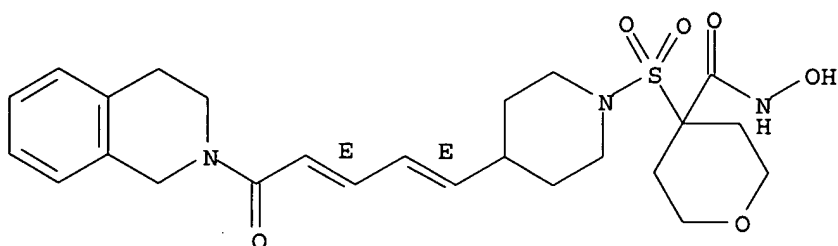
10/700202



RN 622388-36-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(3,4-dihydro-2(1H)-isoquinolinyl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI)
(CA INDEX NAME)

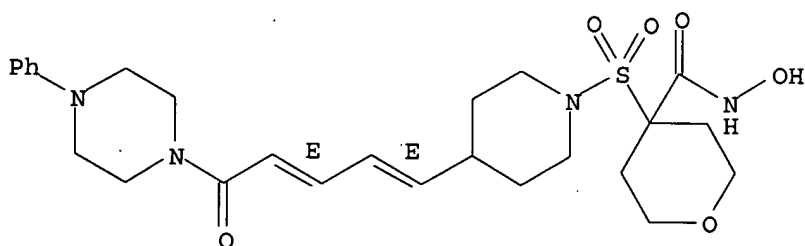
Double bond geometry as shown.



RN 622388-37-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-oxo-5-(4-phenyl-1-piperazinyl)-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

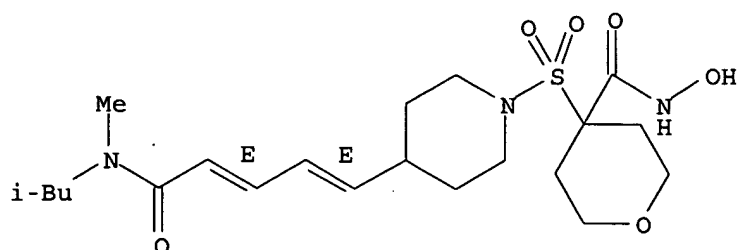


RN 622388-38-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-[methyl(2-methylpropyl)amino]-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI)
(CA INDEX NAME)

Double bond geometry as shown.

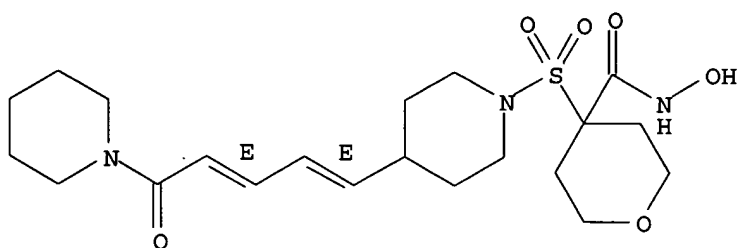
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RN 622388-40-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-oxo-5-(1-piperidinyl)-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

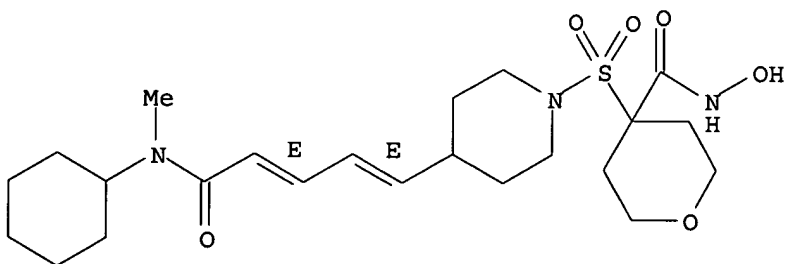
Double bond geometry as shown.



RN 622388-42-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(cyclohexylmethylamino)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

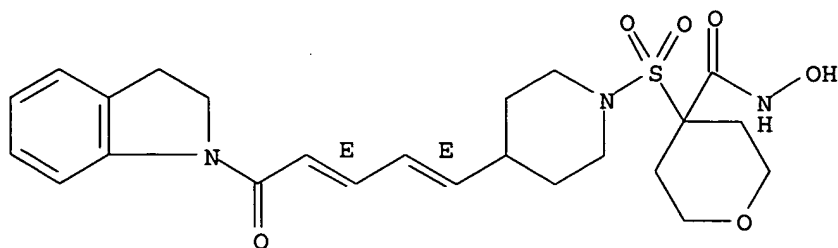
Double bond geometry as shown.



RN 622388-44-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(2,3-dihydro-1H-indol-1-yl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

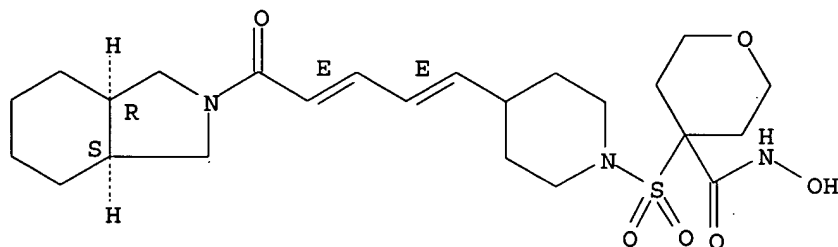
Double bond geometry as shown.



RN 622388-46-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-[(3aR,7aS)-octahydro-2H-isoindol-2-yl]-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]-, rel- (9CI) (CA INDEX NAME)

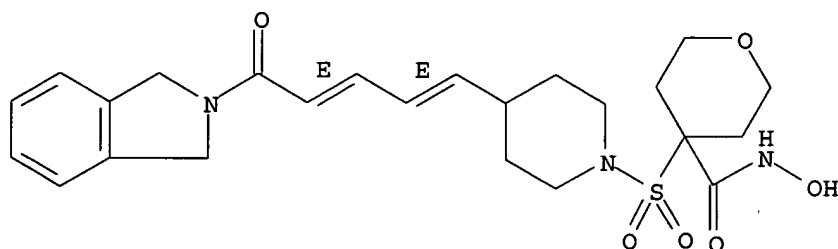
Relative stereochemistry.
Double bond geometry as shown.



RN 622388-47-0 CAPLUS

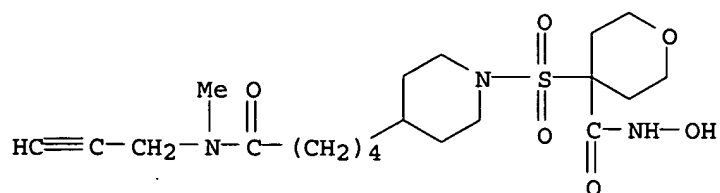
CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(1,3-dihydro-2H-isoindol-2-yl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



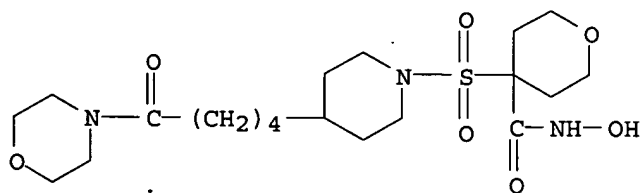
RN 622388-48-1 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-N-2-propynyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



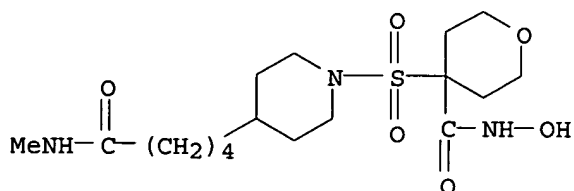
RN 622388-50-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(4-morpholinyl)-5-oxopentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



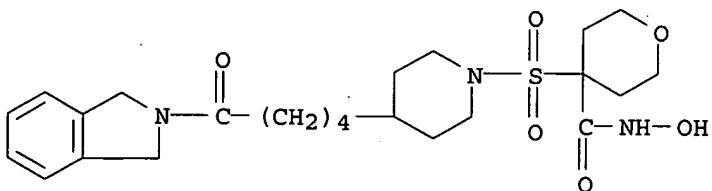
RN 622388-51-6 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



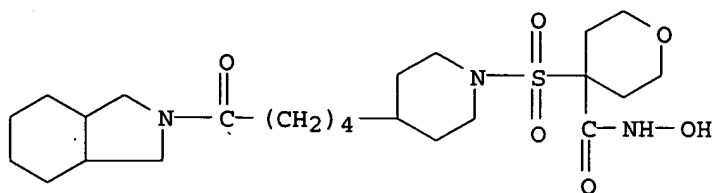
RN 622388-52-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(1,3-dihydro-2H-isoindol-2-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



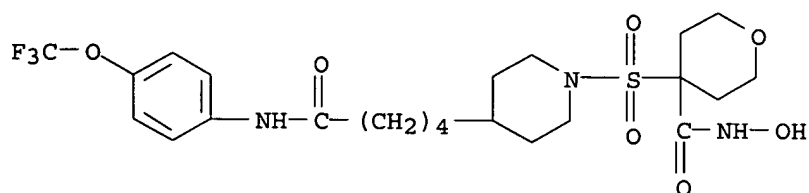
RN 622388-53-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(octahydro-2H-isoindol-2-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



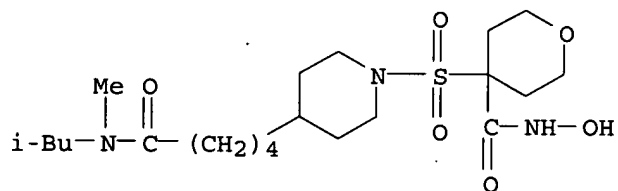
RN 622388-54-9 CAPLUS

CN 4-Piperidinepentanamide, 1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-N-[4-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



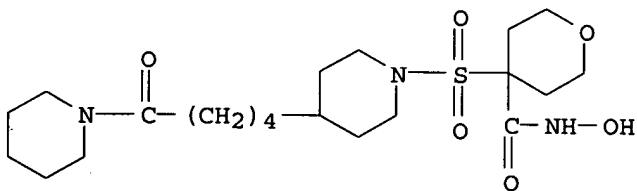
RN 622388-55-0 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-N-(2-methylpropyl)-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



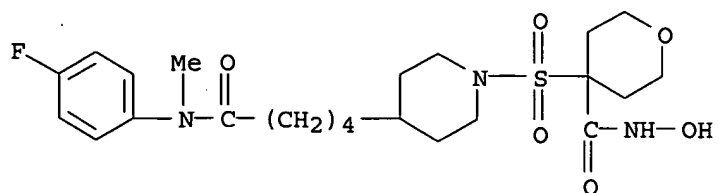
RN 622388-56-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-oxo-5-(1-piperidinyl)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



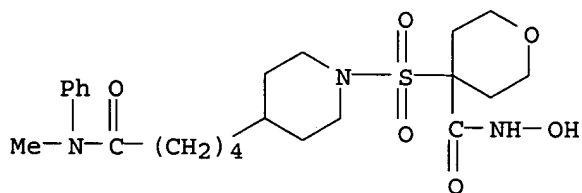
RN 622388-57-2 CAPLUS

CN 4-Piperidinepentanamide, N-(4-fluorophenyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



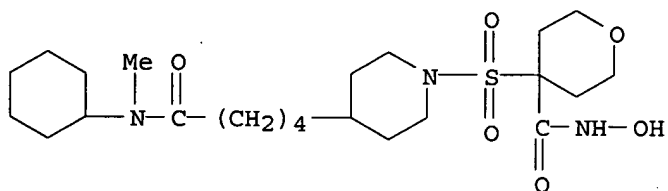
RN 622388-58-3 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-N-phenyl-1-[[tetrahydro-4-
[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-60-7 CAPLUS

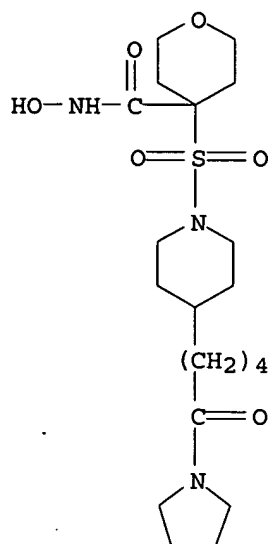
CN 4-Piperidinepentanamide, N-cyclohexyl-N-methyl-1-[[tetrahydro-4-
[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-61-8 CAPLUS

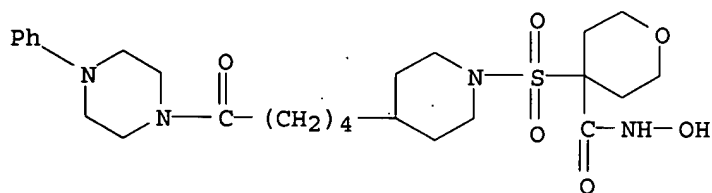
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-oxo-5-(1-pyrrolidinyl)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



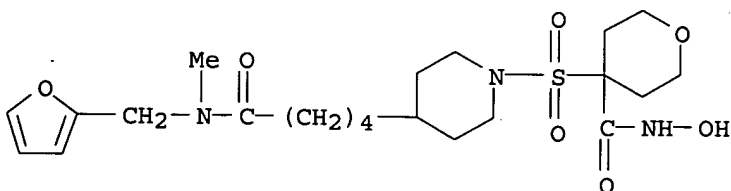
RN 622388-62-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-oxo-5-(4-phenyl-1-piperazinyl)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



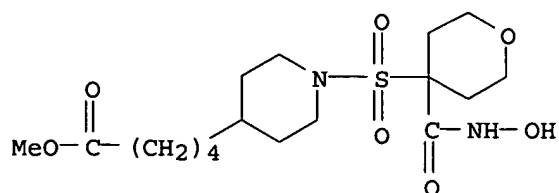
RN 622388-63-0 CAPLUS

CN 4-Piperidinepentanamide, N-(2-furanylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



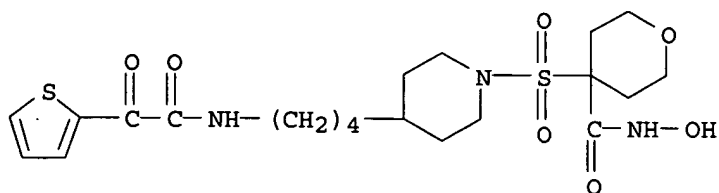
RN 622388-67-4 CAPLUS

CN 4-Piperidinepentanoic acid, 1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



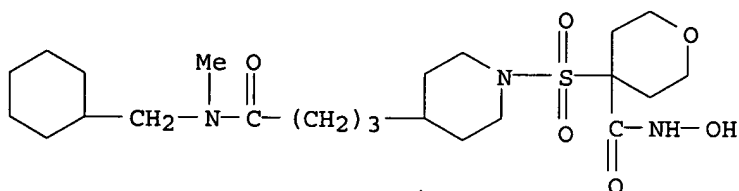
RN 622388-72-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[(oxo-2-thienylacetyl)amino]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



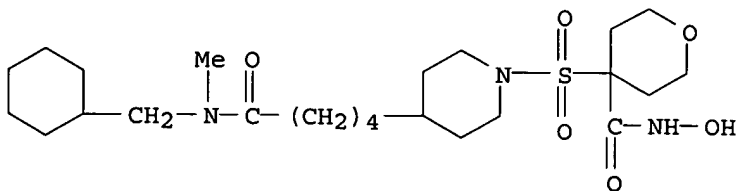
RN 622388-75-4 CAPLUS

CN 4-Piperidinebutanamide, N-(cyclohexylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



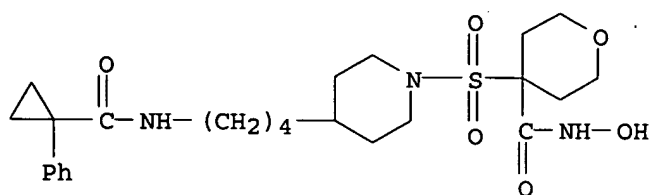
RN 622388-76-5 CAPLUS

CN 4-Piperidinepentanamide, N-(cyclohexylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



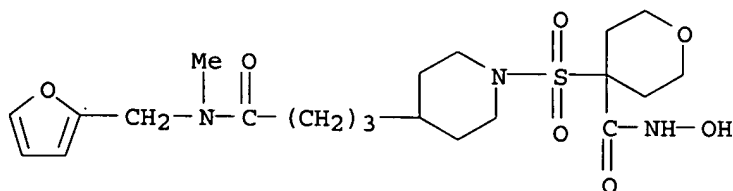
RN 622388-79-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[(1-phenylcyclopropyl)carbonyl]amino]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



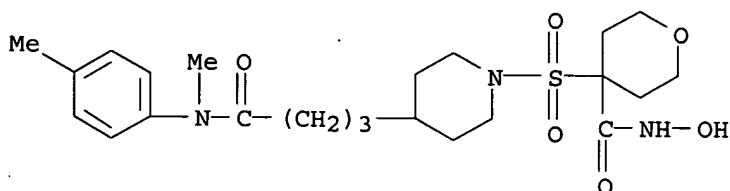
RN 622389-05-3 CAPLUS

CN 4-Piperidinebutanamide, N-(2-furanylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



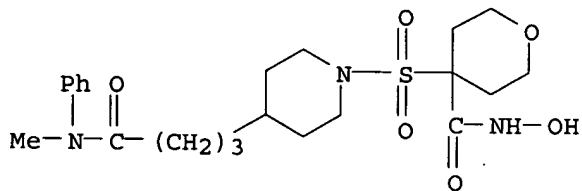
RN 622389-06-4 CAPLUS

CN 4-Piperidinebutanamide, N-methyl-N-(4-methylphenyl)-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622389-07-5 CAPLUS

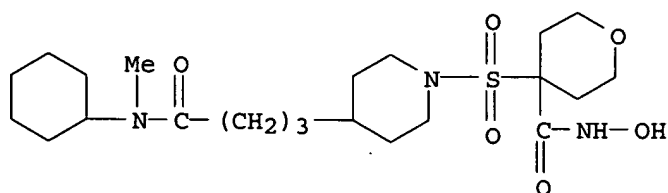
CN 4-Piperidinebutanamide, N-methyl-N-phenyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622389-08-6 CAPLUS

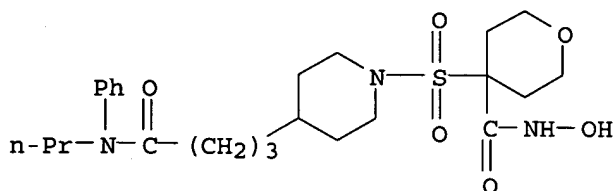
CN 4-Piperidinebutanamide, N-cyclohexyl-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



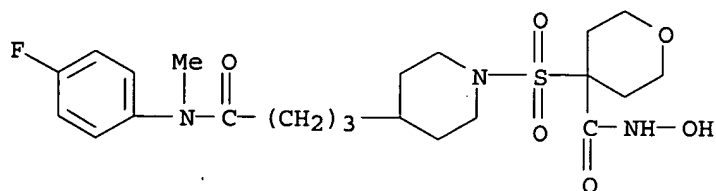
RN 622389-09-7 CAPLUS

CN 4-Piperidinebutanamide, N-phenyl-N-propyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



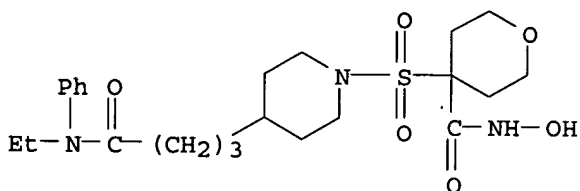
RN 622389-10-0 CAPLUS

CN 4-Piperidinebutanamide, N-(4-fluorophenyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622389-11-1 CAPLUS

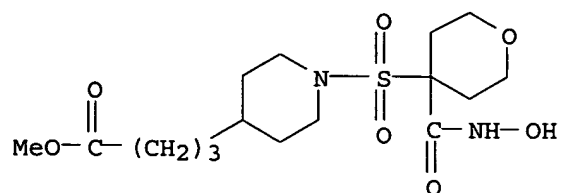
CN 4-Piperidinebutanamide, N-ethyl-N-phenyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622389-12-2 CAPLUS

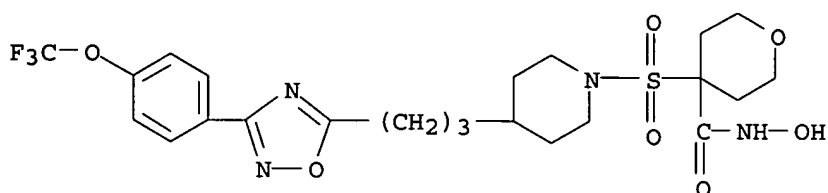
CN 4-Piperidinebutanoic acid, 1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

10/700202



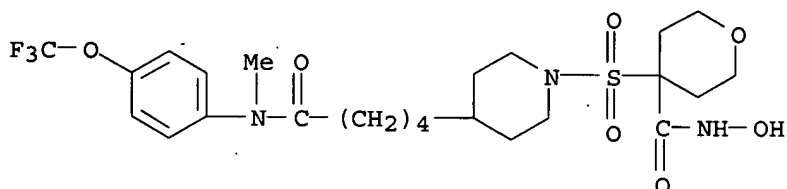
RN 622389-24-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[3-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]propyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



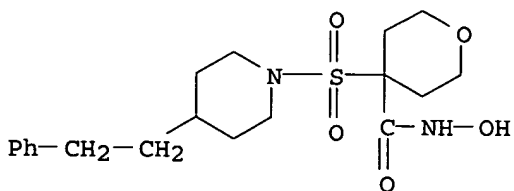
RN 622389-27-9 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-N-[4-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 622389-50-8 CAPLUS

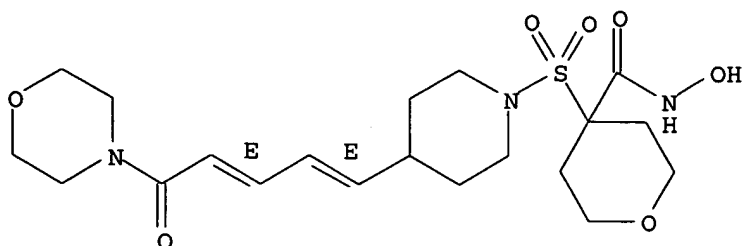
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(2-phenylethyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622389-73-5 CAPLUS

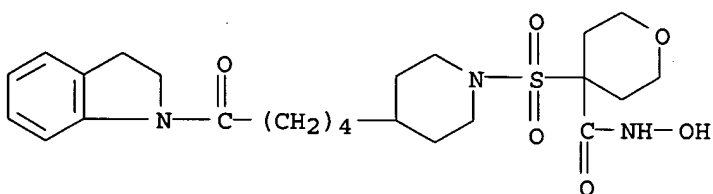
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-(4-morpholinyl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 851771-04-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(2,3-dihydro-1H-indol-1-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:875282 CAPLUS

DN 139:364961

TI Preparation of piperidinyl-and piperazinyl-sulfonylmethyl hydroxamic acids and their use as protease inhibitors

IN Barta, Thomas E.; Becker, Daniel P.; Bedell, Louis J.; Boehm, Terri L.; Brown, David L.; Carroll, Jeffery N.; Chen, Yiyuan; Fobian, Yvette; Freskos, John N.; Gasiecki, Alan F.; Grapperhaus, Margaret; Heintz, Robert M.; Hockerman, Susan L.; Kassab, Darren J.; Khanna, Ish Kumar; Kolodziej, Stephen A.; Massa, Mark; McDonald, Joseph; Mischke, Brent V.; Mischke, Deborah A.; Mullins, Patrick B.; Nagy, Mark; Norton, Monica B.; Rico, Joseph G.; Schmidt, Michelle A.; Stehle, Nathan W.; Talley, John J.; Vernier, William F.; Villamill, Clara I.; Wang, Lijuan Jane; Wynn, Thomas A.

PA Pharmacia Corporation, USA; et al:

SO PCT Int. Appl., 819 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003091247	A2	20031106	WO 2003-US13123	20030425
	WO 2003091247	A3	20040115		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,				

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 CA 2483314 AA 20031106 CA 2003-2483314 20030425
 EP 1501827 A2 20050202 EP 2003-718529 20030425
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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 BR 2003009671 A 20050503 BR 2003-9671 20030425
 PRAI US 2002-375598P P 20020425
 US 2002-380713P P 20020515
 US 2002-392021P P 20020627
 WO 2003-US13123 W 20030425
 OS MARPAT 139:364961
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [A1 and A2 together with the C to which they are bonded join to form (un)substituted-heterocyclyl or -carbocyclyl, or A1 and A2 are independently selected from H, alkyl, alkoxyalkyl, alkenyl, alkynyl, etc.; Rx = H, halo, CN, OH, NO₂, alkyl, alkenyl, alkoxy, alkoxyalkyl, heterocyclyl, etc.; Y = N, CH, or CR_x; E1 = (un)substituted heteroaryl; E2 = O, CO, C(O)O, OC(O), bond, S, etc.; E3 = halo, CN, (un)substituted-alkyl, -alkenyl, -alkynyl, -heterocyclyl, heterocyclylalkyl, etc.] and their pharmaceutically acceptable salts are prepd. and disclosed as protease inhibitors. Thus, e.g., II.cntdot.HCl was prepd. with piperazine ring formation occurring via cyclization of 2,2,2-trifluoroethoxyaniline (prepn. given) with N,N-di(2-chloroethyl)methylsulfonamide (prepn. given) to provide piperazinyl intermediate III which was converted in five addnl. steps to the desired product. This invention is directed generally to proteinase (also known as 'protease') inhibitors, and more particularly, inhibitors of matrix metalloproteinase (also known as 'matrix metalloprotease' or 'MMP') activity and/or aggrecanase activity. In assays to det. inhibition consts. (K_i) against MMP-1, MMP-2, MMP-9, MMP-13 and MMP-14, I possessed values ranging from 0.13->10,000. This invention also is directed to compns. of such hydroxamic acids, intermediates for the syntheses of such hydroxamic acids, methods for making such hydroxamic acids, and methods for treating conditions (particularly pathol. conditions) assocd. with MMP activity and/or aggrecanase activity.

IT 622396-56-9P 622396-57-0P

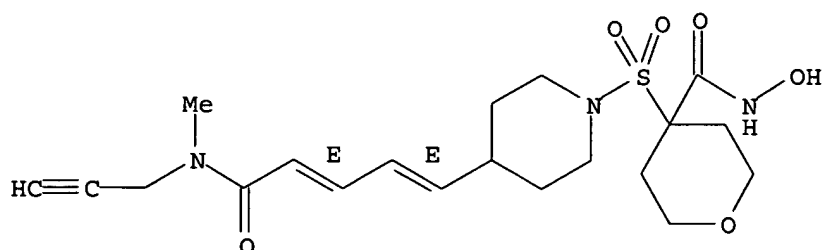
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compds.; prepn. of piperidinyl-and piperazinyl-sulfonylmethyl hydroxamic acids and their use as matrix metalloproteinase inhibitors)

RN 622396-56-9 CAPLUS

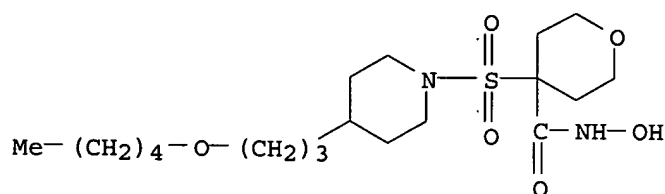
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-(methyl-2-propynylamino)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 622396-57-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[3-(pentyloxy)propyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



IT 622387-48-8P 622389-78-0P 622390-02-7P

622390-05-0P 622390-07-2P 622390-55-0P

622390-62-9P 622390-68-5P 622390-72-1P

622390-78-7P 622390-81-2P 622390-88-9P

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622391-15-5P 622391-31-5P 622391-35-9P

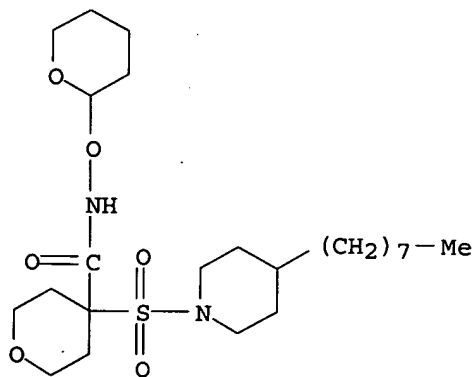
622391-39-3P 622391-43-9P 622391-83-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of piperidinyl- and piperazinyl-sulfonylmethyl hydroxamic acids and their use as matrix metalloproteinase inhibitors)

RN 622387-48-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[(4-octyl-1-piperidinyl)sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)

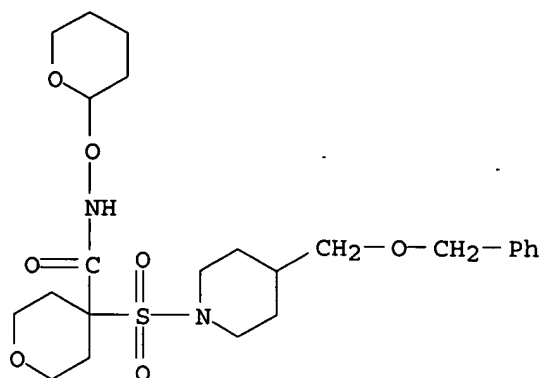


RN 622389-78-0 CAPLUS

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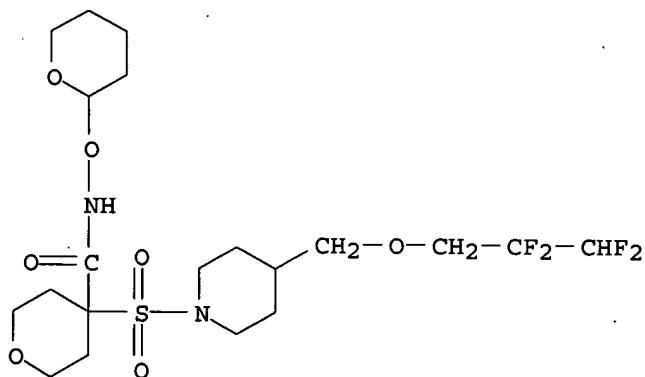
10/700202

piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622390-02-7 CAPLUS

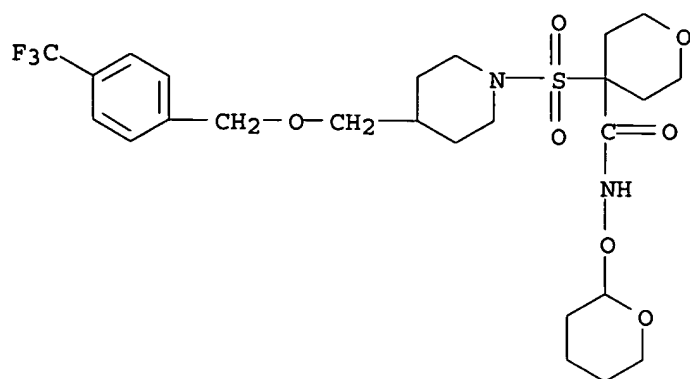
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-[(2,2,3,3-tetrafluoropropoxy)methyl]-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622390-05-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[[4-(trifluoromethyl)phenyl]methoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

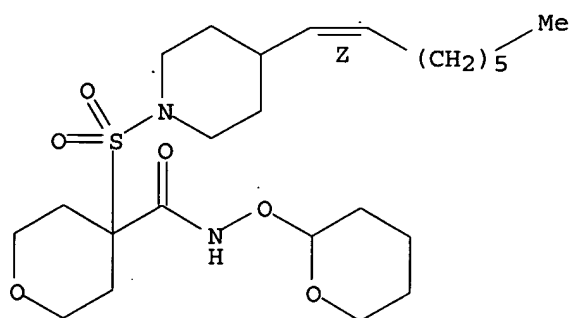
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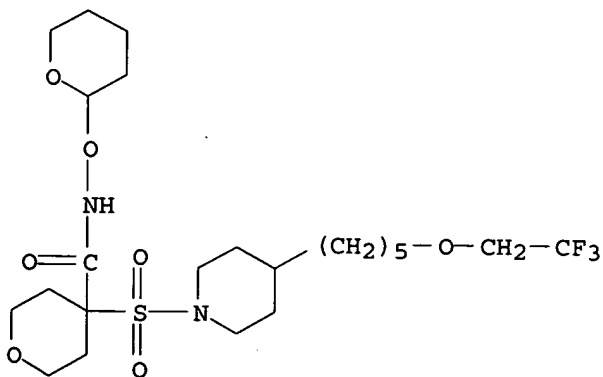
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(1Z)-1-octenyl-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 622390-55-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[5-(2,2,2-trifluoroethoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

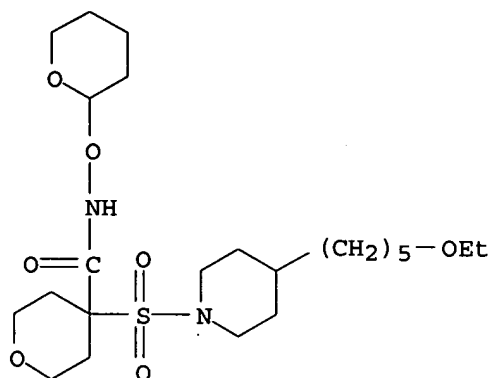


RN 622390-62-9 CAPLUS

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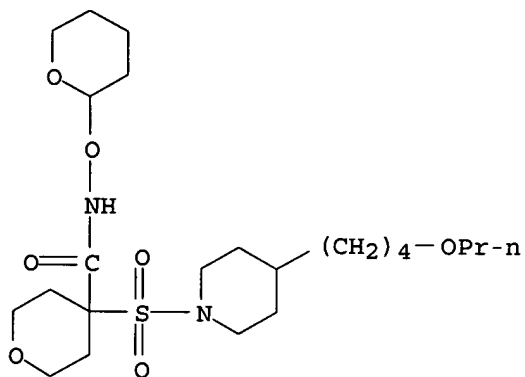
10/700202

piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI)
(CA INDEX NAME)



RN 622390-68-5 CAPLUS

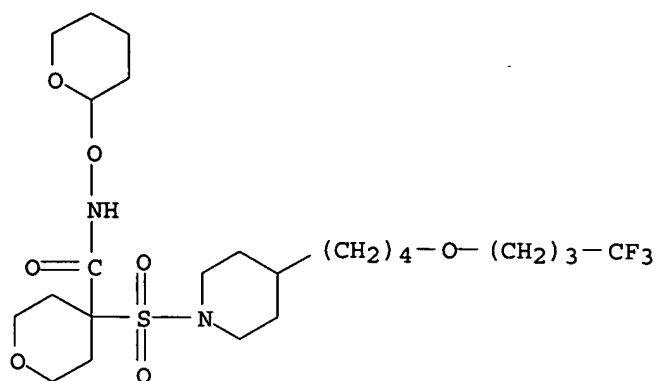
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(4-propoxybutyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622390-72-1 CAPLUS

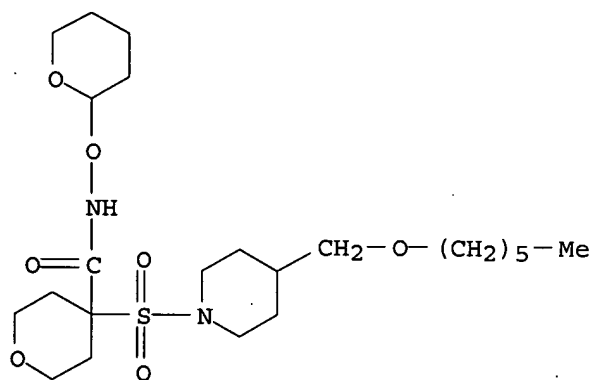
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10/700202



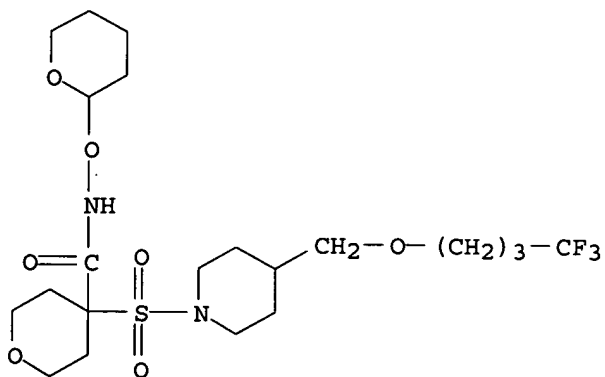
RN 622390-78-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(hexyloxy)methyl]-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy] - (9CI)
(CA INDEX NAME)



RN 622390-81-2 CAPLUS

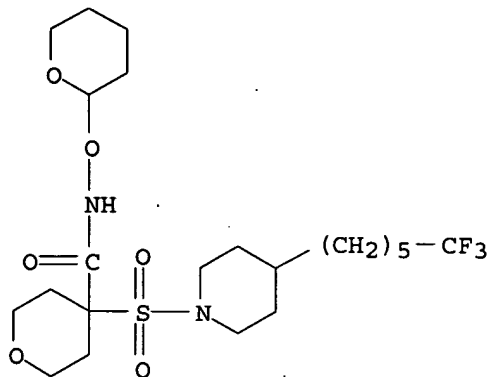
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[(4,4,4-trifluorobutoxy)methyl]-1-piperidinyl]sulfonyl] - (9CI) (CA INDEX NAME)



10/700202

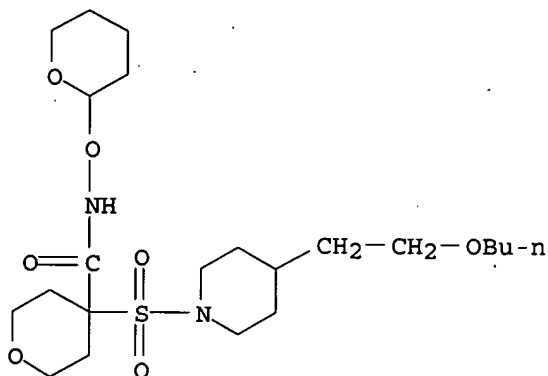
RN 622390-88-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-(6,6,6-trifluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622390-93-6 CAPLUS

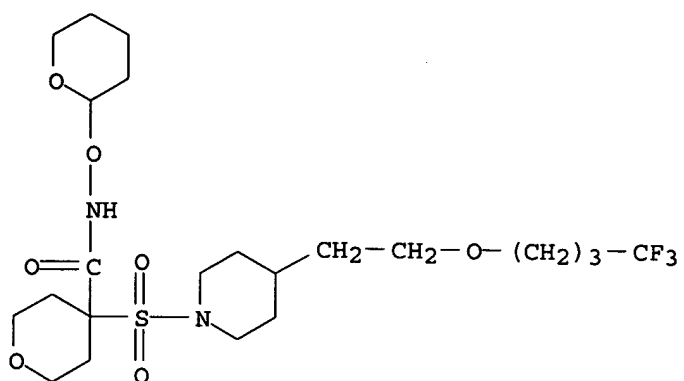
CN 2H-Pyran-4-carboxamide, 4-[[4-(2-butoxyethyl)-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622390-99-2 CAPLUS

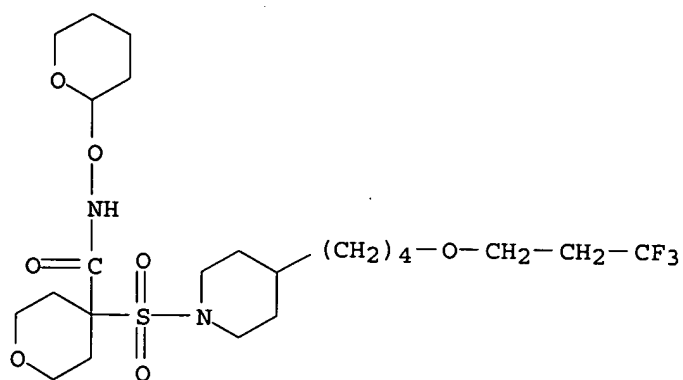
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[2-(4,4,4-trifluorobutoxy)ethyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



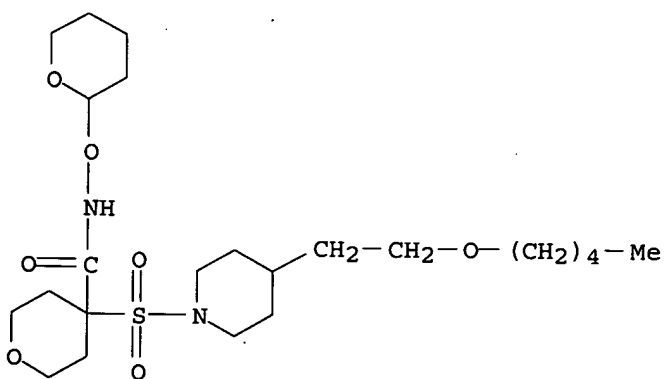
RN 622391-09-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[4-(3,3,3-trifluoropropoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622391-15-5 CAPLUS

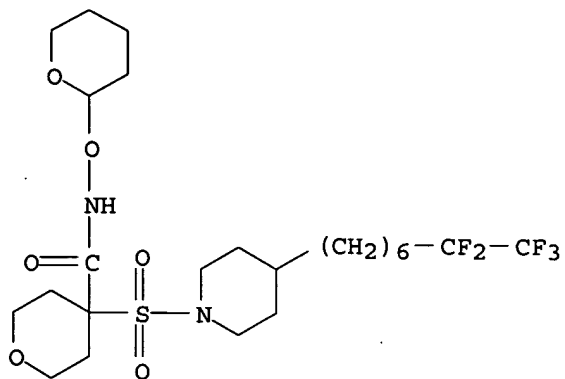
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-[2-(pentyloxy)ethyl]-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



10/700202

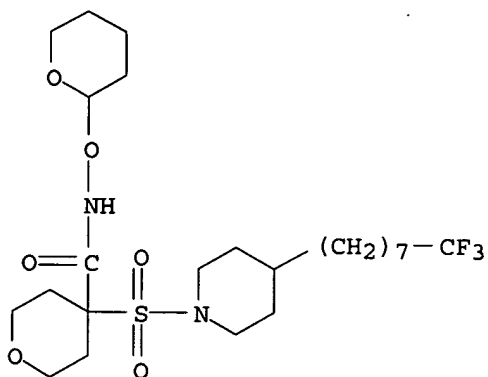
RN 622391-31-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(7,7,8,8,8-pentafluorooctyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy] - (9CI) (CA INDEX NAME)



RN 622391-35-9 CAPLUS

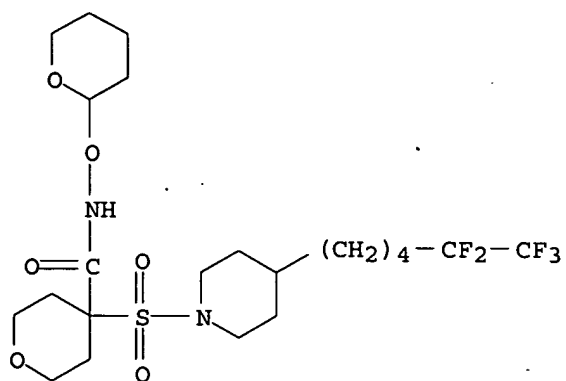
CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-(8,8,8-trifluorooctyl)-1-piperidinyl]sulfonyl] - (9CI) (CA INDEX NAME)



RN 622391-39-3 CAPLUS

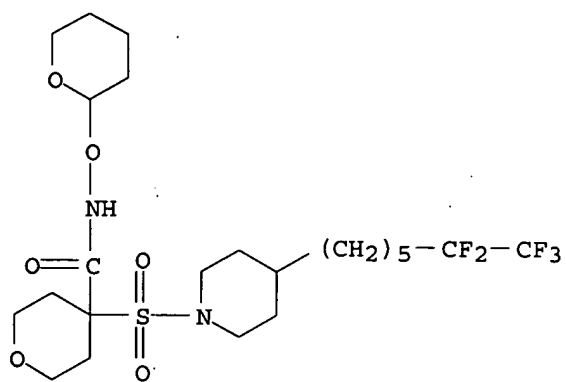
CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(5,5,6,6,6-pentafluorohexyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy] - (9CI) (CA INDEX NAME)

10/700202



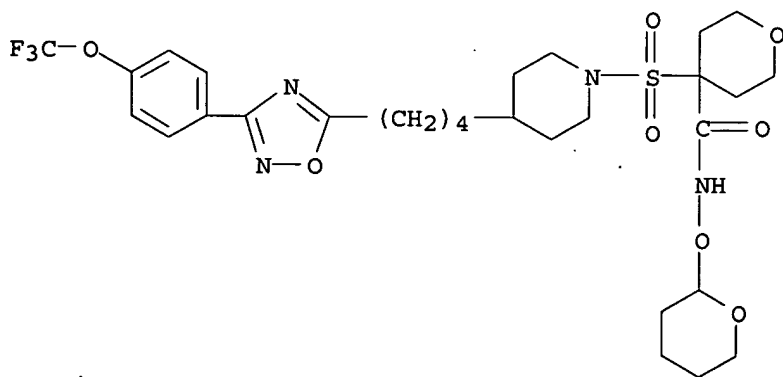
RN 622391-43-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(6,6,7,7,7-pentafluoroheptyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 622391-83-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy]-4-[[4-[4-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



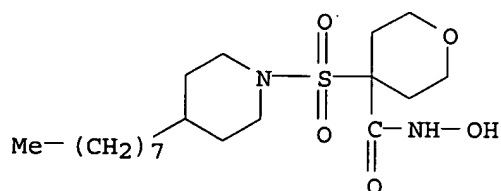
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 622389-24-6P 622389-27-9P 622389-50-8P
 622389-73-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of piperidinyl- and piperazinyl-sulfonylmethyl hydroxamic acids and their use as matrix metalloproteinase inhibitors)

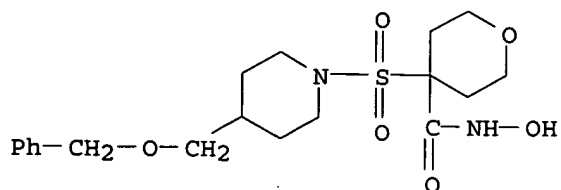
RN 622382-02-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[(4-octyl-1-piperidinyl)sulfonyl]- (9CI) (CA INDEX NAME)



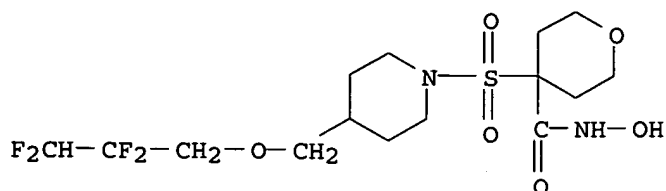
RN 622385-57-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(phenylmethoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



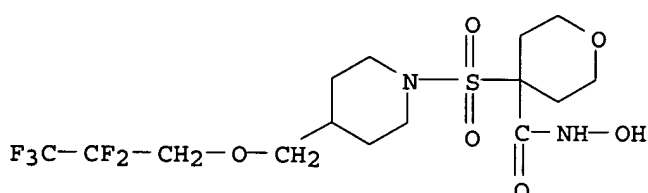
RN 622385-59-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(2,2,3,3-tetrafluoropropoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



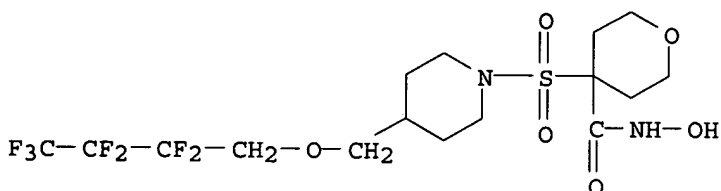
RN 622385-60-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(2,2,3,3,3-pentafluoropropoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



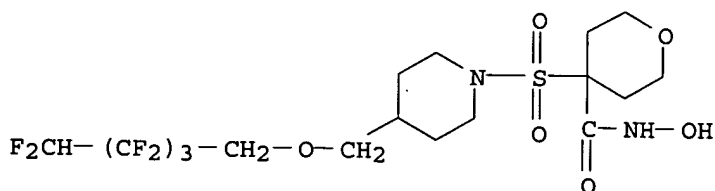
RN 622385-61-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(2,2,3,3,4,4,4-heptafluorobutoxy)methyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



RN 622385-62-0 CAPLUS

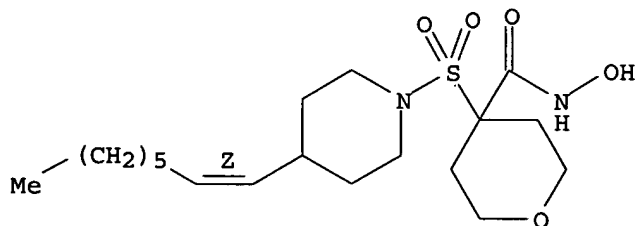
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[(2,2,3,3,4,4,5,5-octafluoropentyl)oxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622385-88-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(1Z)-1-octenyl-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

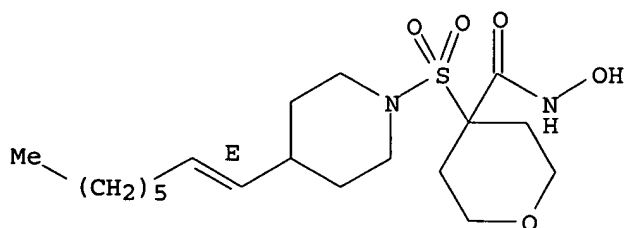
Double bond geometry as shown.



RN 622385-89-1 CAPLUS

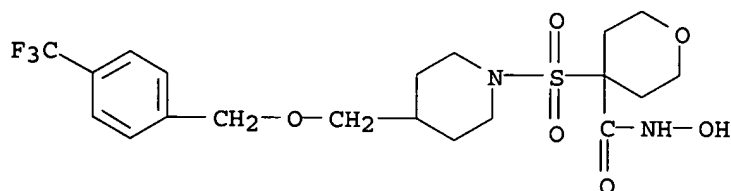
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(1E)-1-octenyl]-1-piperidinyl]sulfonyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



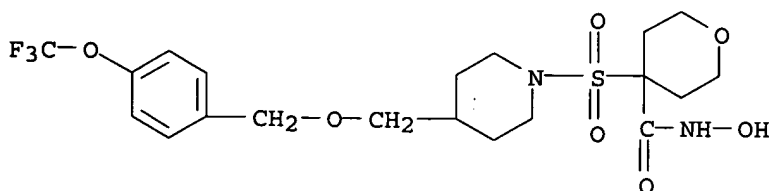
RN 622385-90-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-(trifluoromethyl)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



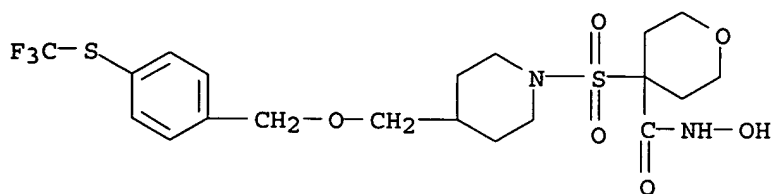
RN 622385-91-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-(trifluoromethoxy)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



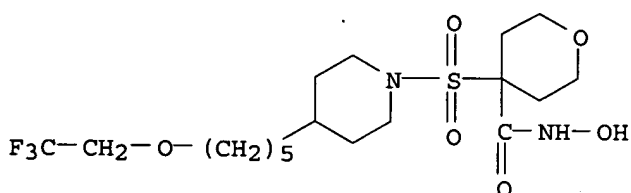
RN 622385-92-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[[[4-[(trifluoromethylthio)phenyl]methoxy]methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



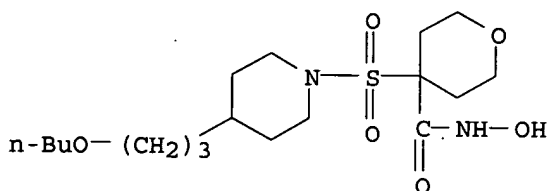
RN 622387-62-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(2,2,2-trifluoroethoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



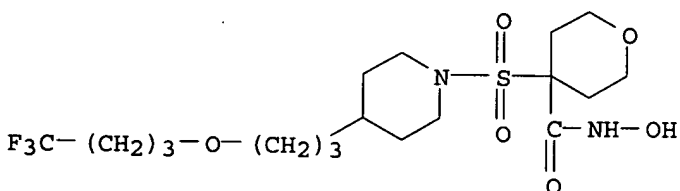
RN 622387-72-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(3-butoxypropyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



RN 622387-73-9 CAPLUS

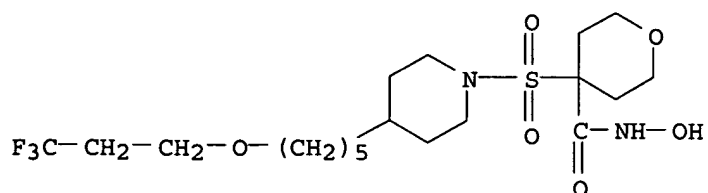
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[3-(4,4,4-trifluorobutoxy)propyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622387-74-0 CAPLUS

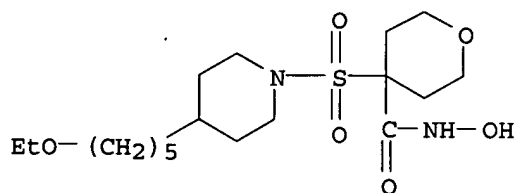
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(3,3,3-trifluoropropoxy)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



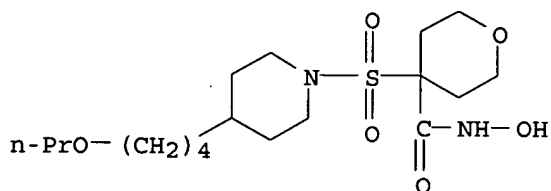
RN 622387-75-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(5-ethoxypentyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



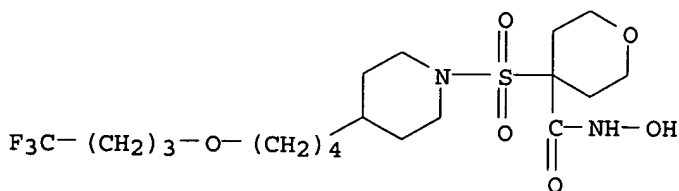
RN 622387-76-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(4-propoxybutyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



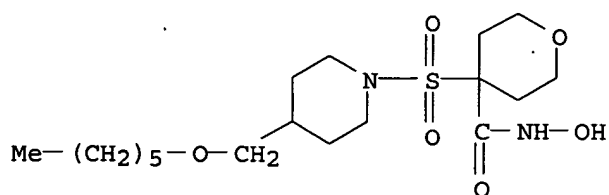
RN 622387-77-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-(4,4,4-trifluorobutoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



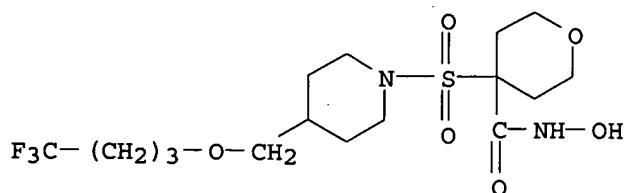
RN 622387-78-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(hexyloxy)methyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



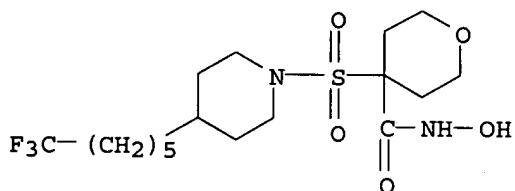
RN 622387-79-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(4,4,4-trifluorobutoxy)methyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



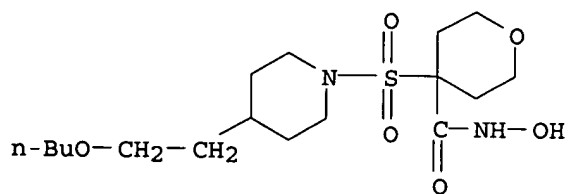
RN 622387-80-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(6,6,6-trifluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



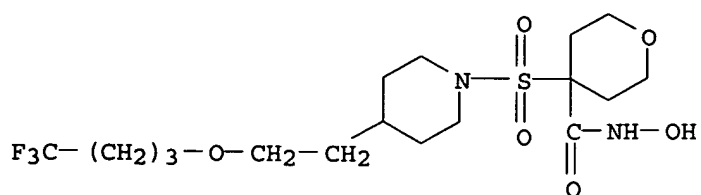
RN 622387-81-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(2-butoxyethyl)-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



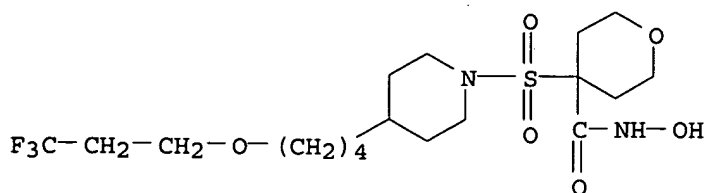
RN 622387-82-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[2-(4,4,4-trifluorobutoxy)ethyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



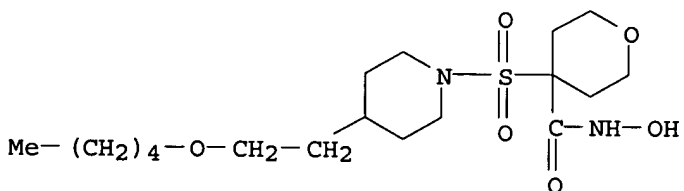
RN 622387-83-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-(3,3,3-trifluoropropoxy)butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



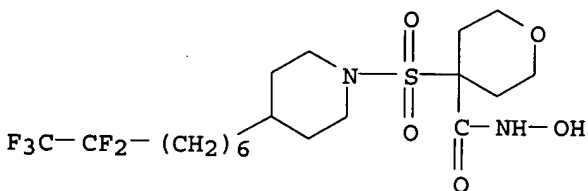
RN 622387-84-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[2-(pentyloxy)ethyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



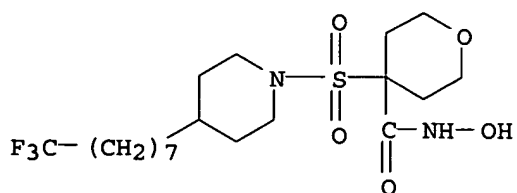
RN 622387-92-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(7,7,8,8,8-pentafluorooctyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



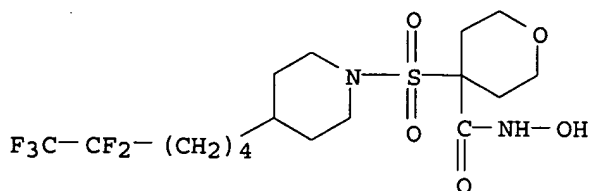
RN 622387-94-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(8,8,8-trifluorooctyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



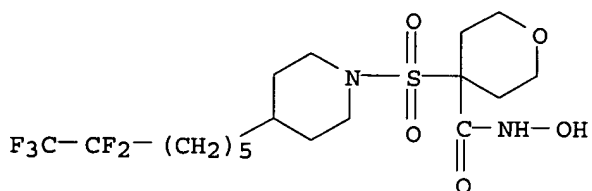
RN 622387-96-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(5,5,6,6,6-pentafluorohexyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



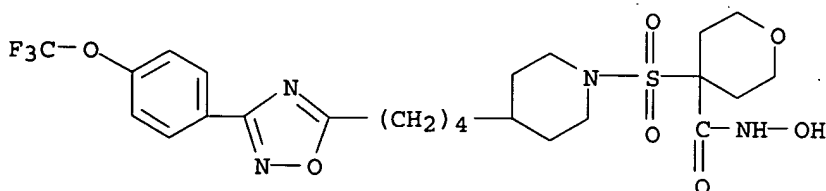
RN 622387-98-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(6,6,7,7,7-pentafluoroheptyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-18-5 CAPLUS

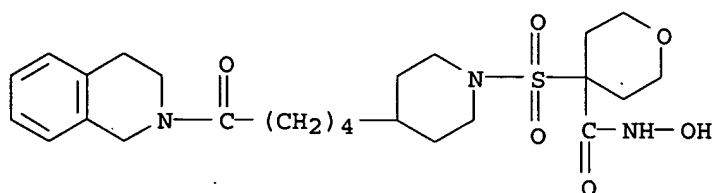
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-35-6 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(3,4-dihydro-2(1H)-isoquinolinyl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

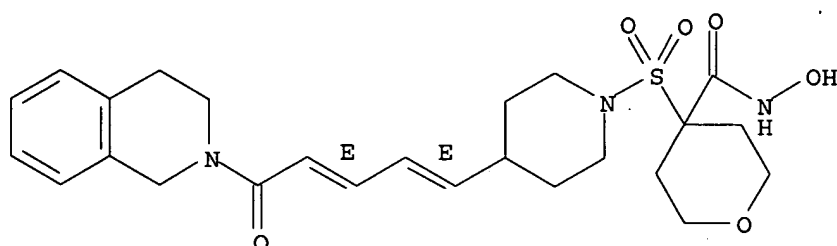
10/700202



RN 622388-36-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(3,4-dihydro-2(1H)-isoquinolinyl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI)
(CA INDEX NAME)

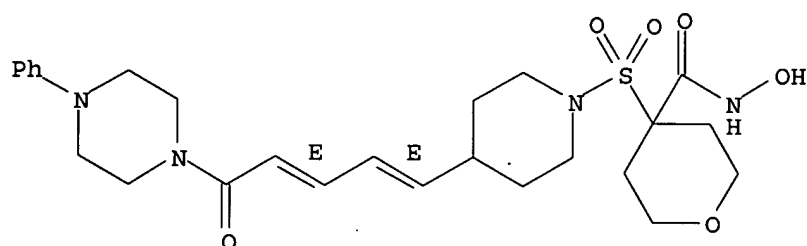
Double bond geometry as shown.



RN 622388-37-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-oxo-5-(4-phenyl-1-piperazinyl)-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

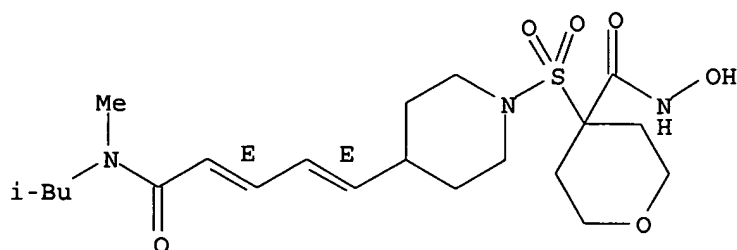


RN 622388-38-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-[methyl(2-methylpropyl)amino]-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI)
(CA INDEX NAME)

Double bond geometry as shown.

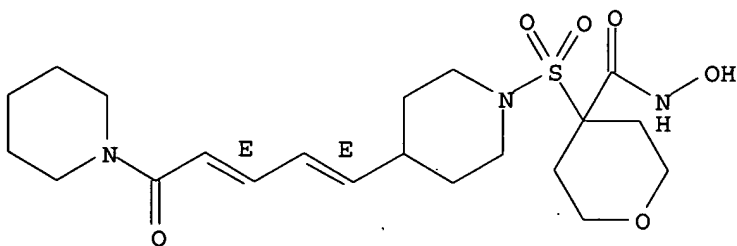
10/700202



RN 622388-40-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-oxo-5-(1-piperidinyl)-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

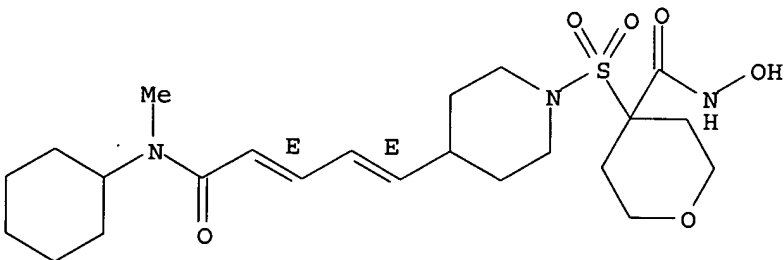
Double bond geometry as shown.



RN 622388-42-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(cyclohexylmethylamino)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

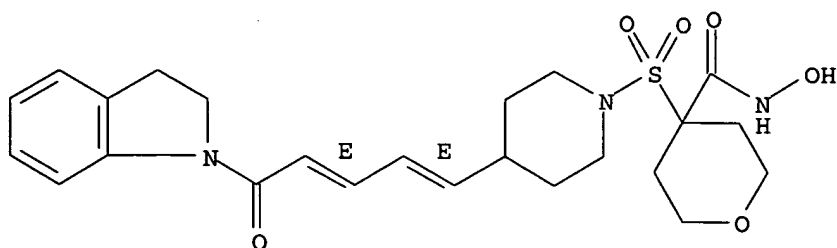


RN 622388-44-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(2,3-dihydro-1H-indol-1-yl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

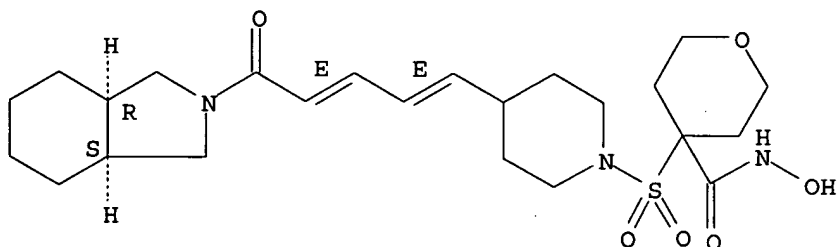
10/700202



RN 622388-46-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-[(3aR,7aS)-octahydro-2H-isoindol-2-yl]-5-oxo-1,3-pentadienyl]-1-piperidinyll-sulfonyl]-, rel- (9CI) (CA INDEX NAME)

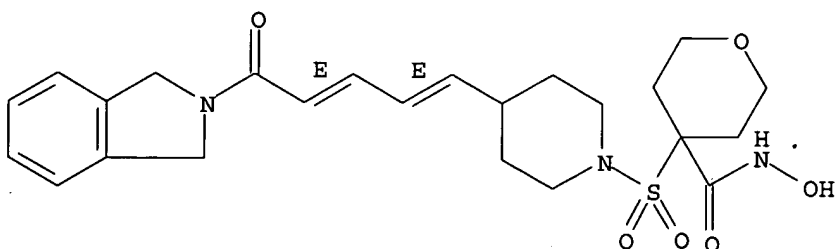
Relative stereochemistry.
Double bond geometry as shown.



RN 622388-47-0 CAPLUS

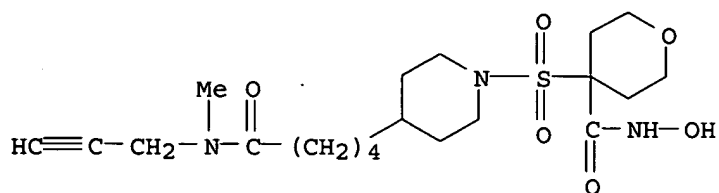
CN 2H-Pyran-4-carboxamide, 4-[[4-[(1E,3E)-5-(1,3-dihydro-2H-isoindol-2-yl)-5-oxo-1,3-pentadienyl]-1-piperidinyll-sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



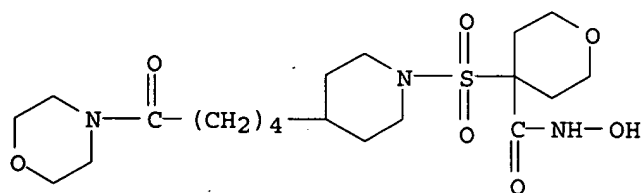
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CN 4-Piperidinepentanamide, N-methyl-N-2-propynyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



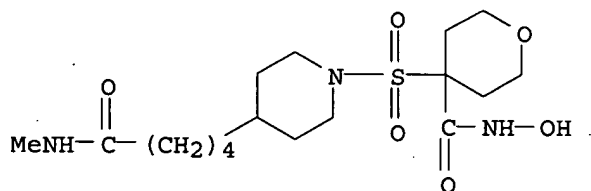
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CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(4-morpholinyl)-5-oxopentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



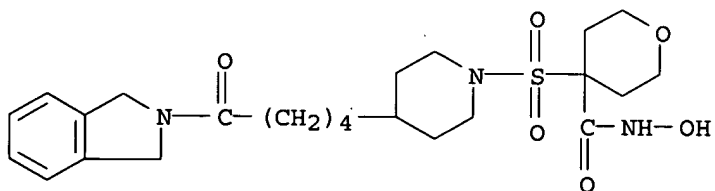
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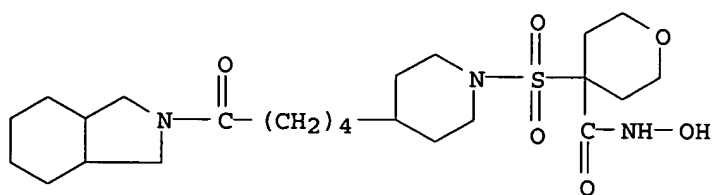
RN 622388-52-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[5-(1,3-dihydro-2H-isoindol-2-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)



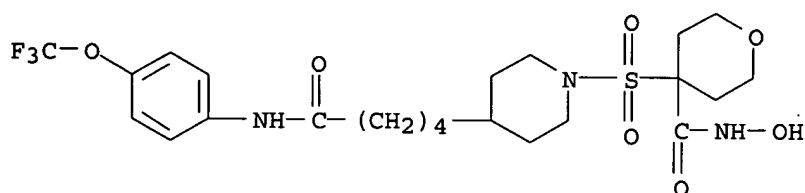
RN 622388-53-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-(octahydro-2H-isoindol-2-yl)-5-oxopentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



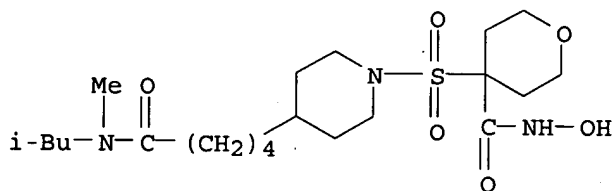
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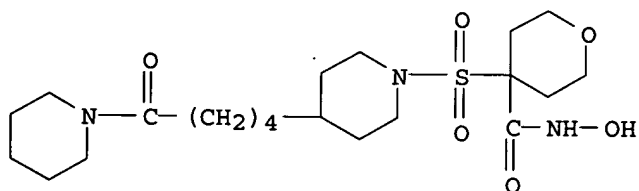
RN 622388-55-0 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-N-(2-methylpropyl)-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-56-1 CAPLUS

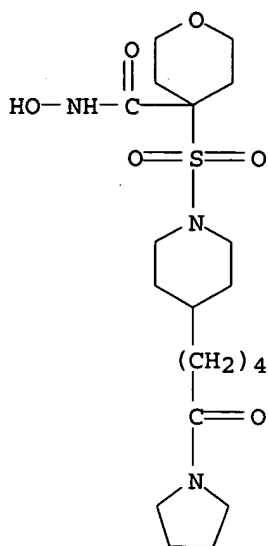
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-oxo-5-(1-piperidinyl)pentyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622388-57-2 CAPLUS

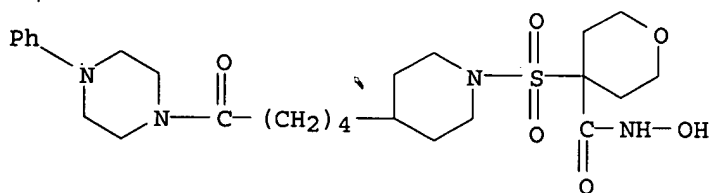
CN 4-Piperidinepentanamide, N-(4-fluorophenyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

10/700202



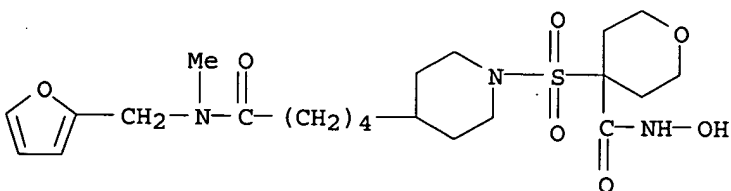
RN 622388-62-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[5-oxo-5-(4-phenyl-1-piperazinyl)pentyl]-1-piperidiny]sulfonyl]- (9CI) (CA INDEX NAME)



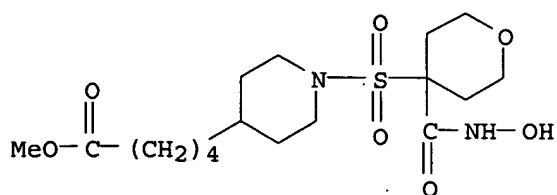
RN 622388-63-0 CAPLUS

CN 4-Piperidinepentanamide, N-(2-furanylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



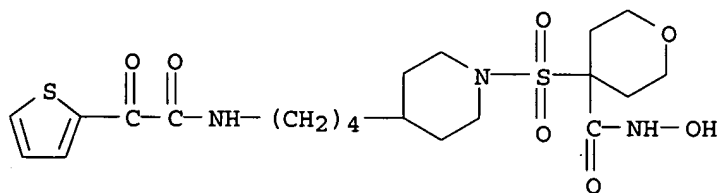
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CN 4-Piperidinepentanoic acid, 1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



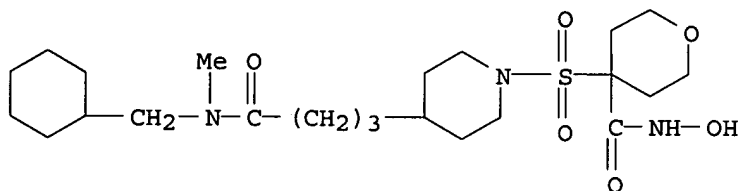
RN 622388-72-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[(oxo-2-thienylacetyl)amino]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



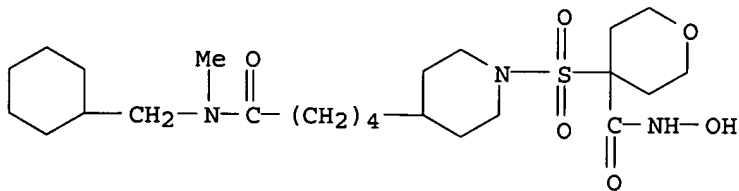
RN 622388-75-4 CAPLUS

CN 4-Piperidinebutanamide, N-(cyclohexylmethyl)-N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)



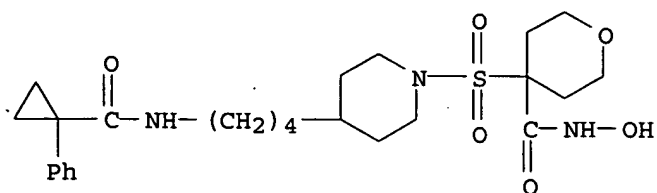
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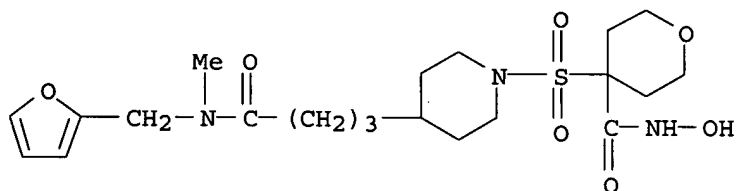


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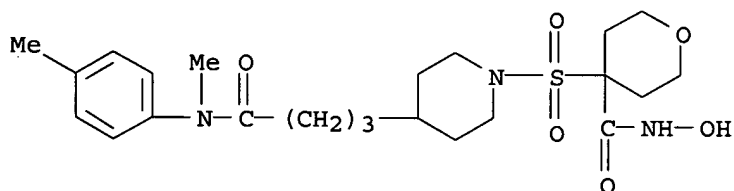
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[[[1-phenylcyclopropyl]carbonyl]amino]butyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



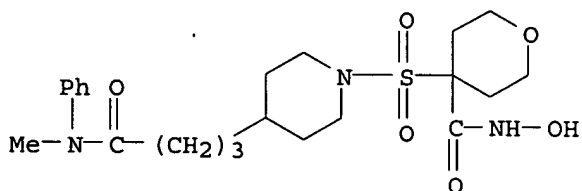
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RN 622389-06-4 CAPLUS

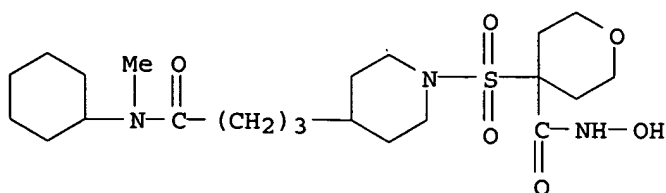
CN 4-Piperidinebutanamide, N-methyl-N-(4-methylphenyl)-1-[[tetrahydro-4-
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RN 622389-07-5 CAPLUS

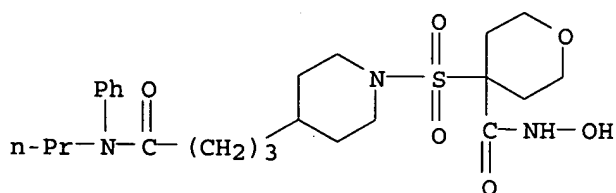
CN 4-Piperidinebutanamide, N-methyl-N-phenyl-1-[[tetrahydro-4-
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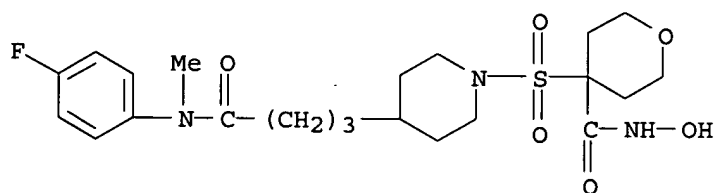
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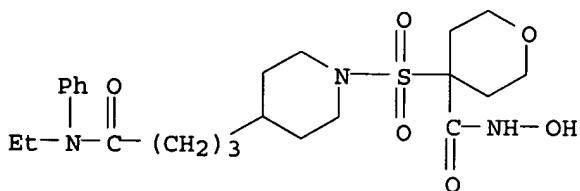
RN 622389-09-7 CAPLUS

CN 4-Piperidinebutanamide, N-phenyl-N-propyl-1-[[tetrahydro-4-
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RN 622389-10-0 CAPLUS

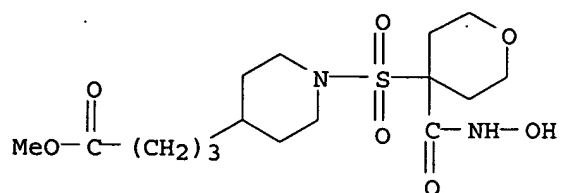
CN 4-Piperidinebutanamide, N-(4-fluorophenyl)-N-methyl-1-[[tetrahydro-4-
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RN 622389-11-1 CAPLUS

CN 4-Piperidinebutanamide, N-ethyl-N-phenyl-1-[[tetrahydro-4-
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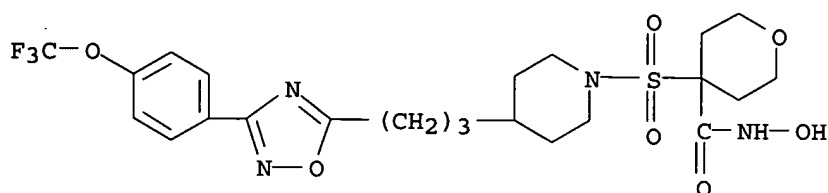
RN 622389-12-2 CAPLUS

CN 4-Piperidinebutanoic acid, 1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-
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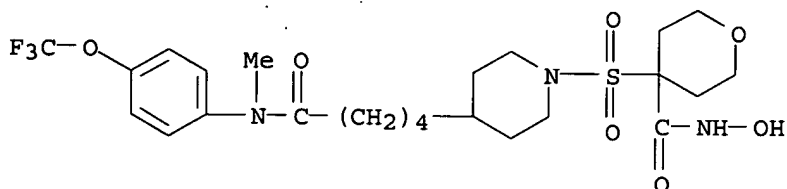
RN 622389-24-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[3-[3-[4-(trifluoromethoxy)phenyl]-1,2,4-oxadiazol-5-yl]propyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



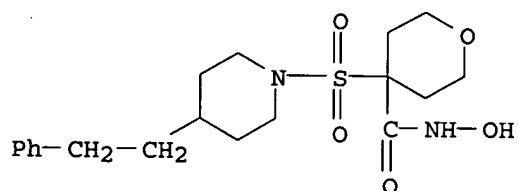
RN 622389-27-9 CAPLUS

CN 4-Piperidinepentanamide, N-methyl-1-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]-N-[4-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



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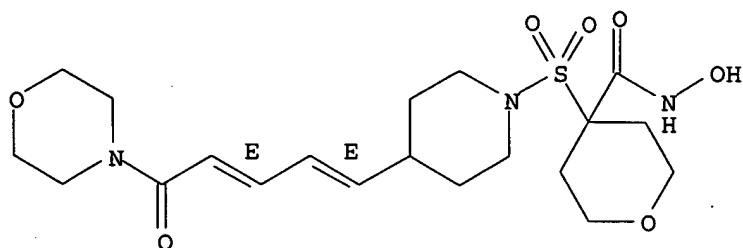
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(2-phenylethyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 622389-73-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[(1E,3E)-5-(4-morpholinyl)-5-oxo-1,3-pentadienyl]-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

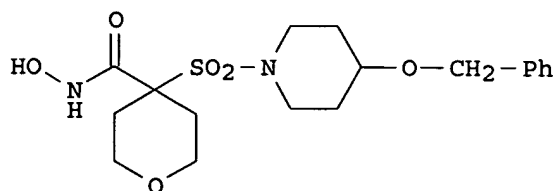


L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2000:553575 CAPLUS
 DN 133:164006
 TI Preparation of sulfamato hydroxamic acid metalloprotease inhibitors
 IN De Crescenzo, Gary A.; Rico, Joseph G.; Boehm, Terri L.; Carroll, Jeffery
 N.; Kassab, Darren J.; Mischke, Deborah A.
 PA G.D. Searle and Co., USA
 SO PCT Int. Appl., 628 pp.
 CODEN: PIXXD2

DT Patent
 LA English

FAN.CNT 1

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OS	MARPAT 133:164006				
GI					



II

AB The title compds. R20C(O)CR1R2SO2NR3aR3b (I) [wherein R1 and R2 taken together with the C to which they are attached = (un)substituted heterocyclyl or cycloalkyl; or R1 and R2 = independently H, (un)substituted (cyclo)alkyl, alkyloxyalkyl, alkylthioalkyl, alkenyl, alkynyl, aryl(alkyl), heterocyclyl(alkyl), etc.; R3a and R3b = independently H or (un)substituted alkyl, alkenyl, alkynyl, (hetero)aryl, heterocyclyl, cycloalkyl, or alkoxyalkyl; R20 = OH, alkoxyl, aryloxy, NH-OR22, or NH-OR14; R22 = selectively removable protecting group, such as 2-THP, benzyl, trisubstituted silyl, o-NO2C6H4, etc.; R14 = H, a cation, or acyl] were prepd. as selective matrix metalloproteinase (MMP) inhibitors for the treatment of various conditions, such as pathol. breakdown of connective tissue, osteoarthritis, inflammation, tumor growth, and angiogenesis. Examples include the syntheses of over 50 piperidinylsulfonyl and piperazinylsulfonyl hydroxamic acids and their intermediates. In vitro MMP assay data for I show selective inhibition of MMP-2 and MMP-13 compared to MMP-1. Some inhibition assay data for MMP-3, MMP-7, MMP-8, MMP-9, and MMP-14 are also given. Thus, II was prepd. in a multi-step sequence involving addn. of MeOC(O)Cl to 1-(methylsulfonyl)-4-(benzyloxy)piperidine (4-step prepn. given) to form the methylene sulfonamide, cycloaddn. of dibromodiethyl ether to give the THF-substituted sulfonamide, deesterification, addn. of O-(tetrahydro-2H-pyran-2-yl)hydroxylamine to form the THP hydroxamate, and deprotection to yield the desired hydroxamic acid. II inhibited MMP-1, MMP-2, and MMP-13 with IC50 values of < 10,000 nM, 7.0 nM and 20.0 nM, resp.

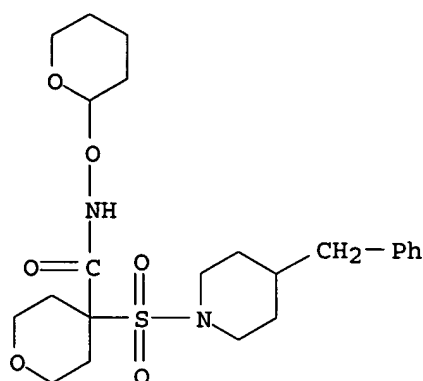
IT 287952-41-4P 287954-44-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of sulfamato hydroxamic acid metalloprotease inhibitors by cycloaddn. of dihalodialkyl ethers and amines to methylene sulfonamides followed by addn. of hydroxylamines)

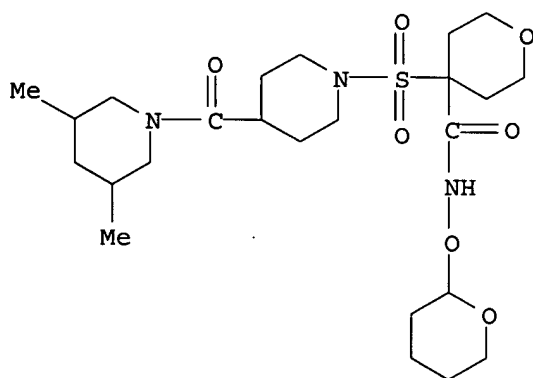
RN 287952-41-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-4-[[4-(phenylmethyl)-1-piperidinyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (9CI) (CA INDEX NAME)



RN 287954-44-3 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[(3,5-dimethyl-1-piperidinyl)carbonyl]-1-piperidinyl]sulfonyl]tetrahydro-N-[(tetrahydro-2H-pyran-2-yl)oxy] - (9CI)
(CA INDEX NAME)



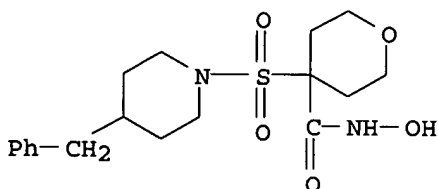
IT 287951-55-7P 287951-75-1P 287951-95-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compd.; prepn. of sulfamato hydroxamic acid metalloprotease inhibitors by cycloaddn. of dihalodialkyl ethers and amines to methylene sulfonamides followed by addn. of hydroxylamines)

RN 287951-55-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-(phenylmethyl)-1-piperidinyl]sulfonyl]- (9CI) (CA INDEX NAME)

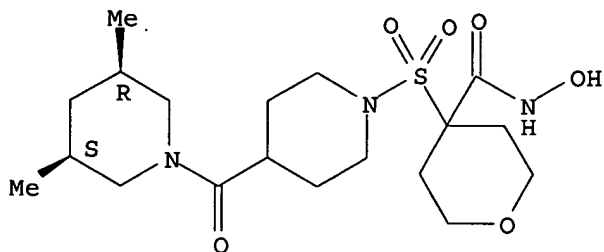


RN 287951-75-1 CAPLUS

10/700202

CN 2H-Pyran-4-carboxamide, 4-[[4-[[[(3R,5S)-3,5-dimethyl-1-piperidinyl]carbonyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy-, rel-(9CI) (CA INDEX NAME)

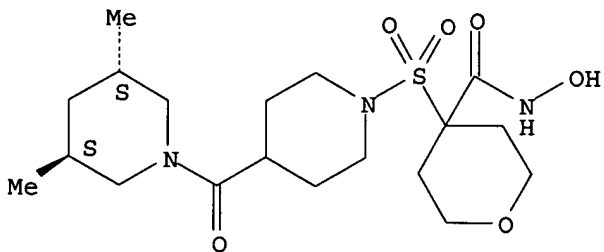
Relative stereochemistry.



RN 287951-95-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[[[(3R,5R)-3,5-dimethyl-1-piperidinyl]carbonyl]-1-piperidinyl]sulfonyl]tetrahydro-N-hydroxy-, rel-(9CI) (CA INDEX NAME)

Relative stereochemistry.



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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COST IN U.S. DOLLARS

SINCE FILE	TOTAL
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FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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10/700202

printed between 1907-1966 are available in the PAGE display formats.

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COST IN U.S. DOLLARS

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